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SAN FRANCISCO, CAL.

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1888.

DUNHAM, CARRIGAN & Co.

1888.

# Upright Rim Knob Locks.



Patent Steel Key.

With Stop. Full Size Cut of No. 2233. Style of Nos. 2334, 2335, 2336, 2337, 2338, 2534, 2537, 2538.

Tinned Malleable Iron Key.

## Japanned Case.

Packed with Screws, and Japanned Plate Escutcheons.

Reverse by Removing Cap.

4 x 3 $\frac{1}{4}$  Inch.

Numbers.	With Stop.	Without Knobs. Per dozen.
<b>2203</b>	Iron Bolts, Coppered Iron Key	\$ 3 65
<b>2233</b>	" " Tinned Malleable Iron Key, 12 Changes packed (1 to 6) and (7 to 12)	4 90

## Patent Reversible.

4 $\frac{1}{4}$  x 3 $\frac{1}{4}$  Inch.

With Stop.

<b>2334</b>	Iron Bolts, Nickel-Plated Patent Steel Key, 12 Changes packed (1 to 6) and (7 to 12)	\$ 7 35
<b>2335</b>	Brass Bolts, " " " " " 12 " " " " " " " "	8 40
Thumb Bolt.		
<b>2336</b>	Iron Bolts, Tinned Malleable Iron Key, 12 Changes packed (1 to 6) and (7 to 12)	\$ 6 30
<b>2337</b>	" " Nickel-Plated Patent Steel Key, 12 " " " " " "	8 05
<b>2338</b>	Brass Bolts, " " " " " 12 " " " " " "	9 45
4 $\frac{1}{2}$ x 3 $\frac{1}{4}$ Inch.		
With Stop.		
<b>2534</b>	Iron Bolts, Nickel-Plated Patent Steel Key, 12 Changes packed (1 to 6) and (7 to 12)	\$ 8 05
Thumb Bolt.		
<b>2537</b>	Iron Bolts, Nickel-Plated Patent Steel Key, 12 Changes packed (1 to 6) and (7 to 12)	\$ 8 75
<b>2538</b>	Brass Bolts, " " " " " 12 " " " " " "	10 85



# Upright Rim Knob Locks.



Thumb Bolt. Full Size Cut of Nos. 2737 and 2748. Style of No. 2837. The Cut shows the Patent Steel Key.

Japanned Case.

Packed with Screws, and Japanned Plate Escutcheons.

Patent Reversible.

Thumb Bolt.

Numbers.	5 x 3½ Inch.	Without Knobs. Per dozen.
2737	Iron Bolts, Nickel-Plated Patent Steel Key, 1 Tumbler, 24 Changes packed (1 to 6) (7 to 12) (13 to 18) (19 to 24)	\$14 35
Wrought Iron Inside Work.		
2748	Brass Bolts and Hub, Nickel-Plated Patent Steel Key, 3 Tumblers, 48 changes	\$22 40
6 x 4 Inch.		
2837	Iron Bolts, Nickel-Plated Patent Steel Key, 1 Tumbler, 24 changes	\$18 20

# Upright Rim Front Door Locks.



Two Night Latch Keys.

Full Size Cut of Nos. 2961 and 2964.



Japanned Case.

EASY SPRING.

WITH BRASS TURN KNOB.

Packed with Screws, and Japanned Drop Escutcheons. (Double Key Hole)

Patent Reversible.

Numbers.	6 x 4½ Inch.	Without Knobs. Per dozen.
<b>2961</b>	Iron Bolts, Nickel-Plated Patent Steel Keys, 1 Tumbler on both Bolts, 2 Night Latch Keys, 16 Changes,	<b>\$35 00</b>
<b>2964</b>	Brass Bolts, " " " " " 1 " " " " 2 " " " 16 "	<b>42 00</b>

# Upright Rim Store Door Knob Locks.



Full Size Cut of Nos. 2871, 2873, 2879.

Japanned Case.

Packed with Screws, and Japanned Plate Escutcheons.

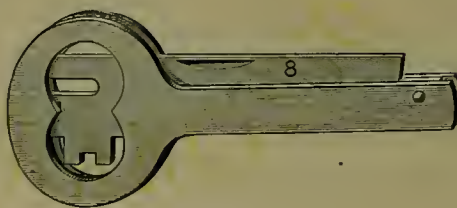
Patent Reversible.

EASY SPRING.

Numbers.	7 x 3½ Inch.						Without Knobs. With 2 Keys. Per dozen.
2871	Iron Bolts, 2	Nickel-Plated Folding Steel Keys, 1	Tumbler, 16	Changes			\$42 00
2873	" " 2	" " " 3	" 96	"			49 00
2879	Brass Bolts, 2	" " " 5	" 300	"			63 00



## Upright Rim Store Door Dead Locks.



Full Size Cut of Nos. 4561 and 4563. Style of Nos. 4551 and 4571.

Japanned Case.

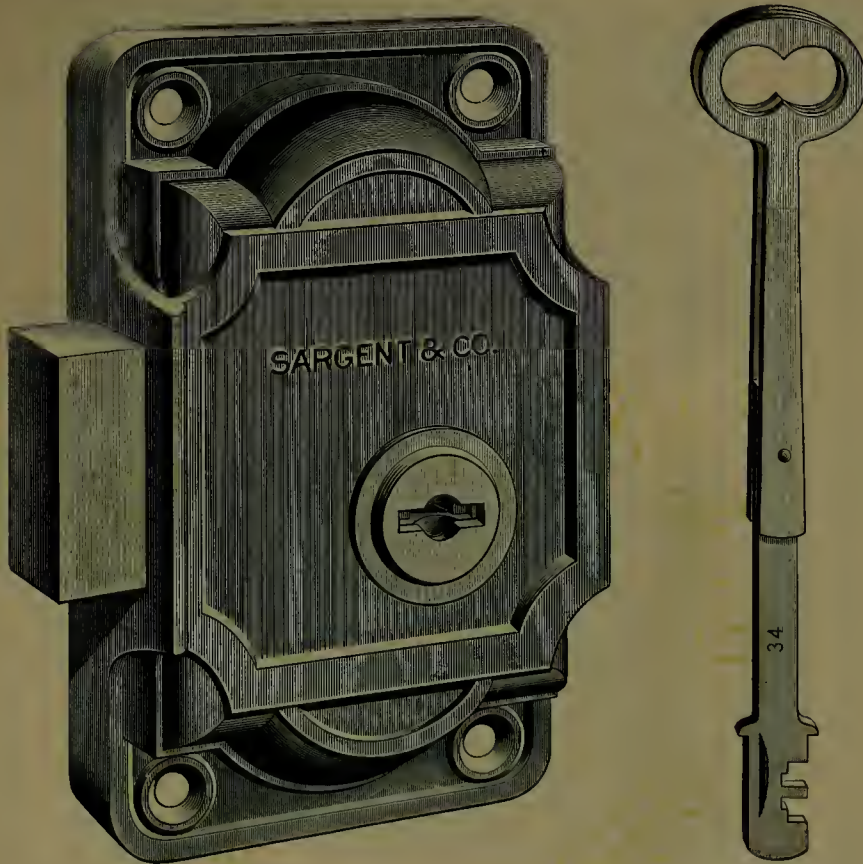
Packed with Screws, and Japanned Plate Escutcheons.

Right or Left Hand.

Numbers.	4 x 2½ Inch.	With 1 Key. Per dozen.	With 2 Keys. Per dozen.
4551	Iron Bolt, Nickel-Plated Folding Steel Keys, 1 Tumbler, 16 Changes	\$18 20	\$20 65
	5 x 3½ Inch.		
4561	Iron Bolt, Nickel-Plated Folding Steel Keys, 1 Tumbler, 16 Changes	\$18 20	\$20 65
	6 x 3½ Inch.		
4571	Iron Bolt, 2 Nickel-Plated Folding Steel Keys, 1 Tumbler, 16 Changes		\$25 90



# Upright Rim Store Door Dead Lock.



Full Size Cut of No. 4592.

Japanned Case.

Packed with Screws, and Bronze Metal Round Plate Escutcheons.

Right or Left Hand.

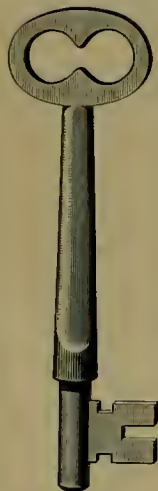
Number.	5 x 2 $\frac{7}{8}$ Inch.	With 2 Keys. Per dozen.
4592	Iron Bolt, Brass Bushed Key Hole, Nickel-Plated Folding Steel Keys, 2 Tumblers, 16 Changes	\$31 15

## Horizontal Rim Dead Locks.

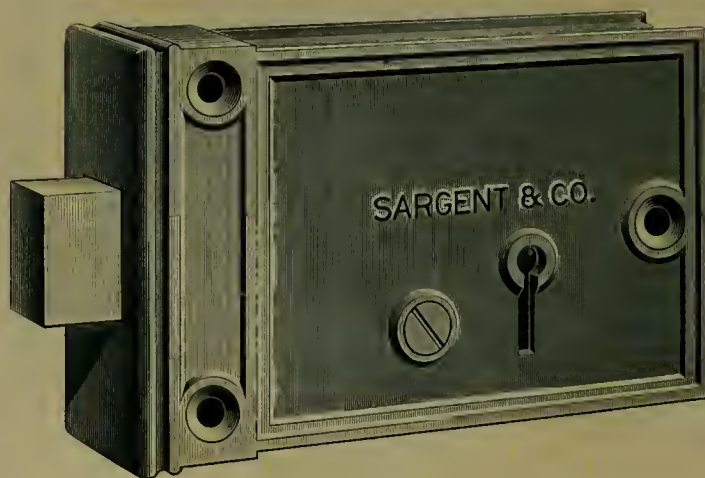


Full Size Cut of No. 4410.

Coppered Iron Key.



Tinned Malleable Iron Key.



Full Size Cut of Nos. 4451 and 4458. Style Nos. 4460 and 4471.



Patent Steel Key.

## Japanned Case.

Packed with Screws, and Japanned Plate Escutcheons.

## Right or Left Hand.

Numbers.	3 x 2 Inch.	Per dozen.
4410	Iron Bolt, Coppered Iron Key . . . . .	\$ 2 25
	<b>3½ x 2½ Inch.</b>	
4451	Iron Bolt, Nickel-Plated Patent Steel Key, 1 Tumbler, 12 Changes . . . . .	\$ 6 30
4458	Brass Bolt, " " " " 3 " 48 " . . . . .	9 80
	<b>4 x 2½ Inch.</b>	
4460	Iron Bolt, Tinned Malleable Iron Key, 1 Tumbler . . . . .	\$ 6 30
	<b>5 x 3½ Inch.</b>	
4471	Iron Bolt, Nickel-Plated Patent Steel Key, 1 Tumbler, 12 Changes . . . . .	\$10 15

# Mortise Knob Locks.



Patent Steel Key.

Full Size Cut of Nos. 5231, 5332 and 5334. Style No. 5200.

Japanned Case.

Packed with two Japanned Plate Escutcheons.

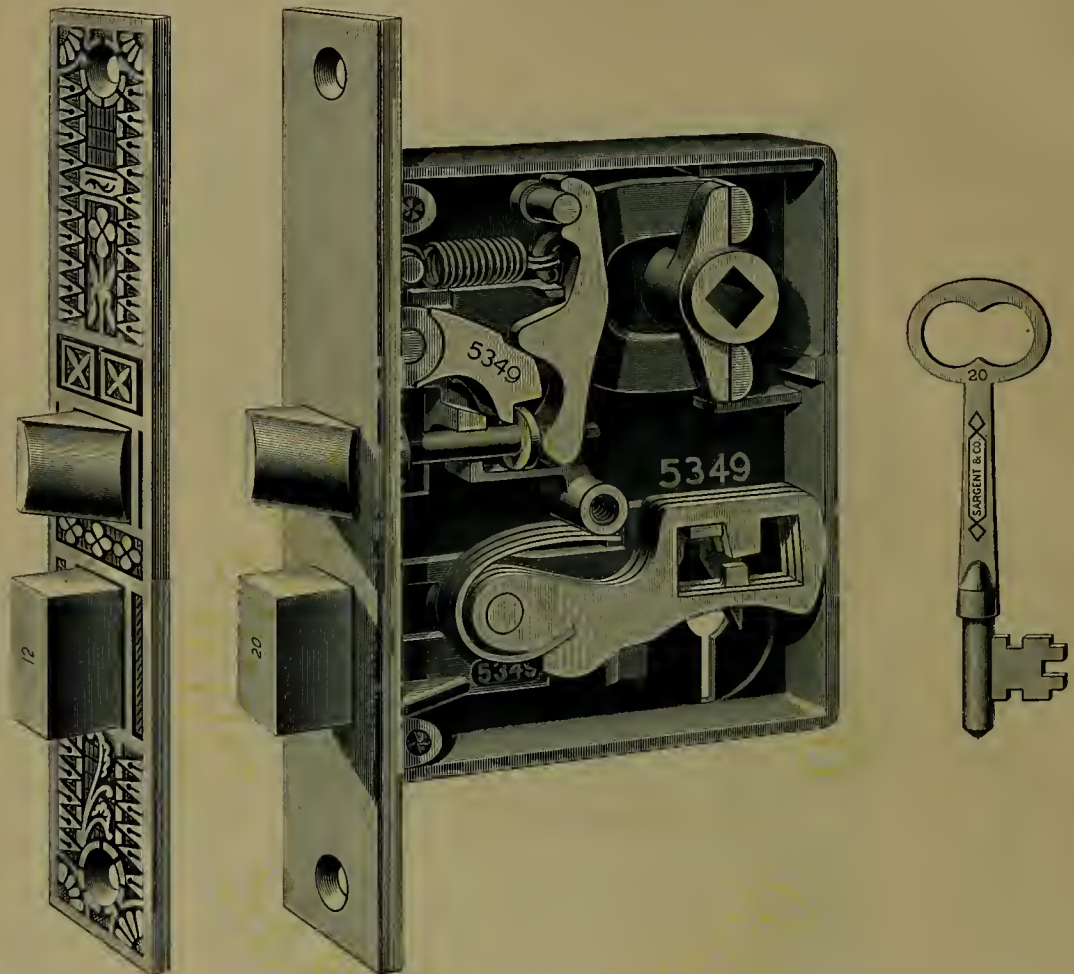
3½ x 3¼ Inch.

Reverse by Removing Cap.

Numbers.	Wrought Iron Strikes with Iron Front Locks.	Cast Brass Strikes with Brass Front Locks.	Without Knobs. Per dozen.
5200	Iron Front, Iron Bolts, Coppered Iron Key . . . . .		\$3 65
5231	" " " " Nickel-Plated Patent Steel Key, 12 Changes packed (1 to 6) and (7 to 12).		6 65
Patent Reversible.			
5332	Iron Front, Brass Bolts, Nickel-Plated Patent Steel Key, 12 Changes packed (1 to 6) and (7 to 12) .		\$8 40
5334	Brass Front, " " " " " " " 12 " " " " " "		9 80



## Mortise Knob Locks.



A  
Arcadia Design.

Plain Front.

Full Size Cut. The Cut shows the PATENT REVERSE.

Japanned Case.

$3\frac{1}{2} \times 3\frac{1}{4}$  Inch.

Patent Reversible.

Wrought Iron Inside Work.

Numbers.	Packed with two Japanned Plate Escutcheons.	Without Knobs. Per dozen.
<b>5344</b>	Plain Brass Front and Strike, Brass Bolts, Brass Hub, Nickel-Plated Patent Steel Key, 1 Tumbler, 24 Changes packed (1 to 6) etc.	\$13 65
<b>5348</b>	Plain Brass Front and Strike, Brass Bolts, Brass Hub, Nickel-Plated Patent Steel Key, 2 Tumblers, 36 Changes packed (1 to 6) etc.	16 10
<b>5349</b>	Plain Brass Front and Strike, Brass Bolts, Brass Hub, Nickel-Plated Patent Steel Key, 3 Tumblers, 48 Changes packed (1 to 6) etc.	18 55

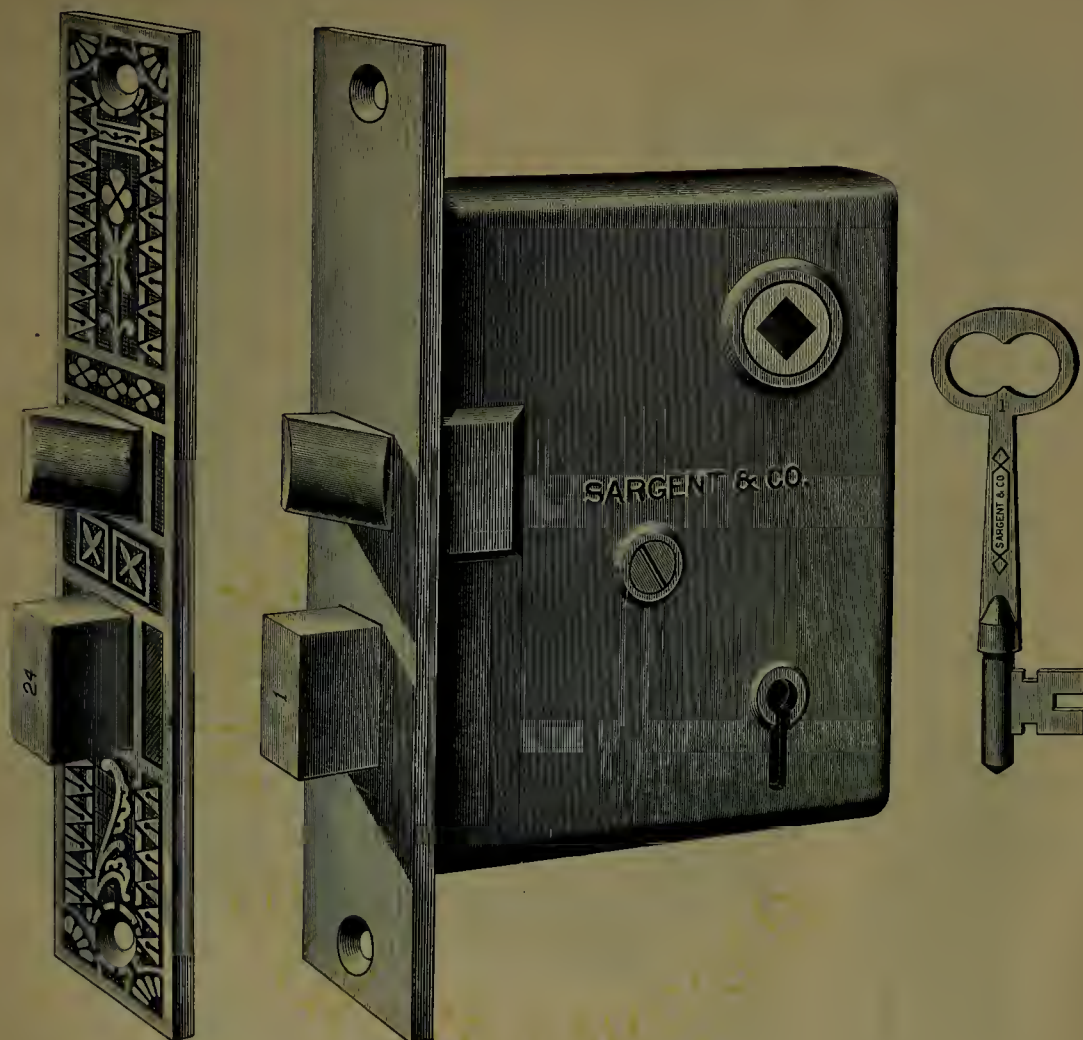
Arcadia Design Front and Strike. Packed with Screws.

	Berlin Bronzed.	
<b>5342 A</b>	Bronze Metal Bolts, Nickel-Plated Patent Steel Key, 1 Tumbler, 24 Changes packed (1 to 6) (7 to 12) etc.	\$13 20
	Tokio Bronzed.	
<b>K 5342 A</b>	Bronze Metal Bolts, Nickel-Plated Patent Steel Key, 1 Tumbler, 24 Changes packed (1 to 6) (7 to 12) etc.	\$13 65



# Mortise Knob Locks.

11



A  
Arcadia Design.

Plain Front. Full Size Cut. The Cut shows the Patent Steel Key.

Japanned Case.

4 x 3½ Inch.

Patent Reversible.

Numbers.	Wrought Iron Strikes with Iron Front Locks. Cast Brass Strikes with Brass Front Locks. Packed with two Japanned Plate Escutcheons.	Without Knobs. Per dozen.
5532	Iron Front, Brass Bolts, Nickel-Plated Patent Steel Key, 12 Changes packed (1 to 6) (7 to 12) etc.	\$ 9 10
5534	Brass " " " " " " " 12 " " " " " "	11 20

Arcadia Design Front and Strike. Packed with Screws.

Wrought Iron Inside Work.

Berlin Bronzed.

5542 A	Bronze Metal Bolts, Nickel-Plated Patent Steel Key, 1 Tumbler, 24 Changes packed (1 to 6) (7 to 12) etc.	\$15 10
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Tokio Bronzed.

K 5542 A	Bronze Metal Bolts, Nickel-Plated Patent Steel Key, 1 Tumbler, 24 Changes packed (1 to 6) (7 to 12) etc.	\$16 10
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## Mortise Knob Locks.



A  
Arcadia Design.

Plain Front.

Full Size Cut. The Cut shows the Patent Steel Key.

Japanned Case.

4½ x 3½ Inch.

Patent Reversible.

Wrought Iron Inside Work.

Numbers.	Packed with two Japanned Plate Escutcheons.	Without Knobs. Per dozen.
5744	Brass Front and Strikes, Brass Bolts, Brass Hub, Nickel-Plated Patent Steel Key, 1 Tumbler, 24 Changes packed (1 to 6) etc.	\$18 90
5748	Brass Front and Strikes, Brass Bolts, Brass Hub, Nickel-Plated Patent Steel Key, 2 Tumblers, 36 Changes packed (1 to 6) etc.	21 35

Arcadia Design Front and Strike. Packed with Screws.

Berlin Bronzed.		
5742 A	Bronze Metal Bolts, Nickel-Plated Patent Steel Key, 1 Tumbler, 24 Changes packed (1 to 6) (7 to 12) etc.	\$17 50
Tokio Bronzed.		
K 5742 A	Bronze Metal Bolts, Nickel-Plated Patent Steel Key, 1 Tumbler, 24 Changes packed (1 to 6) (7 to 12) etc.	\$18 90

# Three Bolt Mortise Knob Locks.



Plain Front. Full Size Cut The Cut shows the Patent Steel Key

Japanned Case.

Packed with NICKEL-PLATED THUMB KNOB AND PLATE.

4 $\frac{1}{2}$  x 3 $\frac{1}{2}$  Inch.

Patent Reversible.

Wrought Iron Inside Work.

Number.

5758

Brass Front and Strikes, 3 Brass Bolts, Brass Hub, Nickel-Plated Patent Steel Key, 2 Tumblers, 36 Changes packed (1 to 6) etc.

Without  
Knobs.  
Per dozen.

\$27 65



## Mortise Knob Locks.

ANTI-FRICTION LATCH.



Plain Front. Full Size Cut. The Cut shows the Patent Steel Key.

Japanned Case.

 $4\frac{1}{2} \times 3\frac{1}{2}$  Inch.

Reverse by Removing Cap.

Number.	Wrought Iron Inside Work.	Without Knobs. Per dozen.
5768	Brass Front and Strikes, Brass Bolts, Brass Hub, Nickel-Plated Patent Steel Key, 2 Tumblers, 36 Changes packed (1 to 3) etc.	\$45 55



# Mortise Knob Locks.

RABBETED FRONT.



Plain Front. Full Size Cut. The Cut shows the Patent Steel Key.

Japanned Case.

$4\frac{1}{2} \times 3\frac{1}{2}$  Inch.

HANDED. (Not Reversible)

Wrought Iron Inside Work.

Number.

578-1

Brass Front and Strikes, Brass Bolts, Brass Hub, Nickel-Plated Patent Steel Key, 1 Tumbler, 24 Changes packed (1 to 3) etc.

Without  
Knobs.  
Per dozen.

\$38 50

The above Locks are NOT REVERSIBLE. Be particular to specify Right Hand, or Left Hand.

## Master Keyed Three Bolt Hotel Mortise Knob Locks.

EASY SPRING.



Full Size Cut of No. 6174.



\* No. 710, Nickel-Plated Thumb Knob and Plate.



Regular Key.



Master Key.

Sold either with or without Master Key.

Patent Reversible. Japanned Case.

Packed with No. 710 Nickel-Plated Thumb Knob and Plate.

Thumb Knob packed with Screws.

Numbers.	4½ x 3½ Inch.	Without Knobs. Per dozen.
<b>6174</b>	Brass Front, Bolts and Hub, Ornamental Brass Key, Cast Brass Strikes, 1 Tumbler, 112 Changes	<b>\$30 10</b>
<b>Master Keys.</b>		
<b>536</b>	Steel Bit Master Keys for the above Lock	Extra, per dozen, <b>\$ 7 00</b>

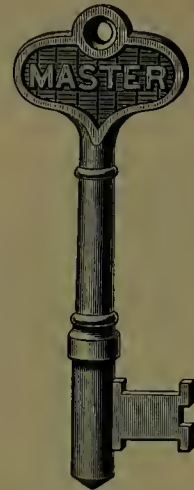
17

# Patent Reversible Master Keyed Hotel Mortise Knob Locks. Double Lock Bolt.



Full Size Cut of No. 6208.

**TWO LOCK BOLTS.  
DOUBLE KEY HOLE.**



Master Key.



Regular Key.

Patent Reversible.

EASY SPRING.

Japanned Case.

Number.	5 x 3½ Inch.	Without Knobs. Per dozen.
<b>6208</b>	Brass Front, Brass Bolts, Brass Hub, Ornamental Brass Key, Cast Brass Strikes, 2 Tumblers, 112 Changes,	<b>\$35 70</b>
	<b>Master Keys.</b>	
<b>547</b>	Steel Bit Master Keys for the above Lock . . . . . Extra, per dozen,	<b>\$ 7 00</b>

## THE ONLY THREE-BOLT REVERSIBLE HOTEL LOCK.

Do not cut the Key Hole clear through the door but into one side only; the upper key hole always for the inside of door and the lower one for outside, as marked upon the Lock. (The Latch Bolt is reversible) When the door is locked upon one side it cannot be unlocked from the other (as the key hole does not go through), neither can the outside bolt be turned while the inside bolt is locked.

Furnished in 7 sets of 112 each (or less), making 784 Locks all different, with Steel Bit Master Key to pass each set of 112.



# Mortise Knob Locks.

For French Windows, Etc.



Full Size Cut of No. 5017.

Full Size Cut of No. 5087.

Japanned Case.

Packed with two Japanned Plate Escutcheons.

Handed.

Flat Front.

Numbers.	$3\frac{1}{4} \times 1\frac{1}{2}$ Inch.	Without Knobs. Per dozen.
5017	Iron Front, Brass Bolts, Brass Strike, Nickel-Plated Patent Steel Key, 1 Tumbler	\$16 80

Rabbeted Front.

	$3\frac{3}{4} \times 2$ Inch.	
5087	Iron Front, Brass Bolts, Brass Strike, Nickel-Plated Patent Steel Key, 1 Tumbler	\$21 00

Specify which Hand is wanted.



# Mortise Front Door Locks.

EASY SPRING.



Nickel-Plated Thumb Knob and Plate.



Lock Bolt Key.

TWO Night Keys.

Full Size Cut of No. 6334.

Japanned Case.

Packed with Nickel-Plated Thumb Knob and Plate.

Thumb Knob Packed with Screws.

Patent Reversible.

Number.	$4\frac{3}{4} \times 3\frac{1}{2}$ Inch.	Without Knobs. Per dozen.
6334	Brass Front, Brass Bolts, Nickel-Plated Patent Steel Keys, 1 Tumbler on each Bolt, 2 Night Keys, 16 Changes	\$38 50

## Mortise Front Door Locks.

ANTI-FRICTION.



Nickel-Plated Thumb Knob and Plate.



Lock Bolt Key.

TWO Night Keys.

Full Size Cut of No. 6564.

Jappaned Case.

Packed with Nickel-Plated Thumb Knob and Plate.

Thumb Knob Packed with Screws.

REVERSE BY REMOVING CAP.

Number.	5½ x 4 Inch.	Without Knobs. Per dozen.
6564	Brass Front, Brass Bolts, Nickel-Plated Patent Steel Keys, 1 Tumbler on each Bolt, 2 Night Keys, 24 Changes . . . . .	\$52 50

# Sliding Door Dead Locks.

For Steamboats, Barn Doors, Etc.



Full Size Cut of No. 6911.

Japanned Case.

Packed with two Japanned Plate Escutcheons.

Right or Left Hand.

Number.	4 x 3 $\frac{1}{2}$ Inch.	Per dozen.
6911	Iron Front, Iron Bolt, Brass Key . . . . .	\$11 55



# Sliding Door Knob Locks.

Flat Front.



Full Size Cut of No. 6943.

Japanned Case.

Right or Left Hand.

Number.	5 x 3 Inch.	Without Knobs. Per dozen.
6943	Brass Front, Brass Bolts, Nickel-Plated Patent Steel Key . . . . .	\$21 00



# Sliding Door Knob Locks.

Astragal Front.



Full Size Cut of No. 6947.

Japanned Case.

Right or Left Hand.

Number.	5 x 3 Inch.	Without Knobs. Per dozen.
6947	Brass Front, Brass Bolts, Nickel-Plated Patent Steel Key, with Sliding Door Stop . . .	\$25 20

# Arcadia Design

## Astragal Front Sliding Door Locks with Pulls.



A  
Arcadia Design.

Key No. 800.

$5\frac{1}{2} \times 3\frac{1}{2}$  Inch.

LOCKS FOR DOUBLE DOORS. Box Strike with Pull; 4 Cup Escutcheons.

The Box Strike has a Pull in the face same as shown in the Lock above.

See following page for description and prices.

# Arcadia Design

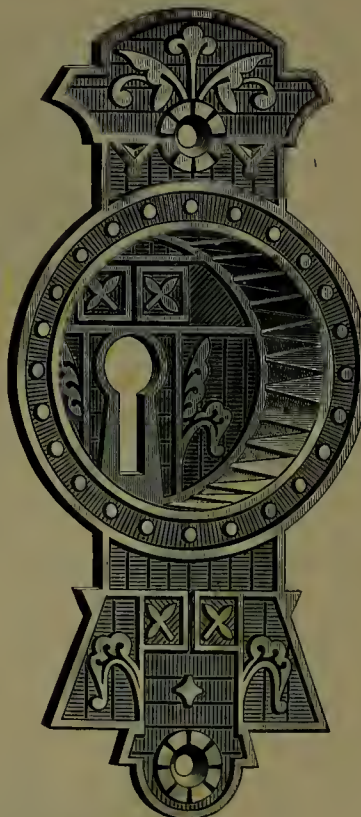
## Flush Cup Escutcheons.

Packed with the Sliding Door Locks shown on preceding page.



Full Size Cut.

No. 462 A, Berlin Bronzed. No. K 482 A, Tokio Bronzed.



Full Size Cut.

No. 443 A, Berlin Bronzed. No. K 443 A, Tokio Bronzed.

### ARCADIA DESIGN

#### Astragal Front Sliding Door Locks with Pulls.

Right or Left Hand.

5½ x 3½ Inch.

Japanned Case.

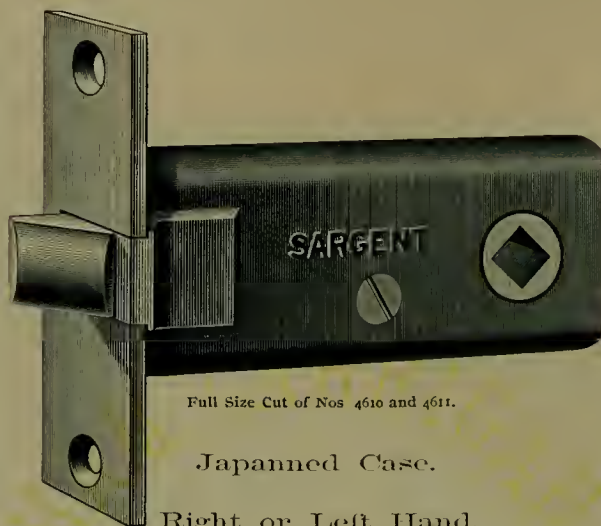
Packed with Flush Cup Escutcheons as shown above.

See preceding page for Cut.

Numbers.	Berlin Bronzed. Packed with Screws to match. Double Doors.	With No. 443 A	With No. 462 A
		Berlin Bronzed Cup Escutcheons. Per dozen Sets.	Berlin Bronzed Cup Escutcheons. Per dozen Sets.
6976 A	Ornamental Berlin Bronzed Front and Strike, Bronze Metal Bolt and Pulls, with Door Stop and 4 Cup Escutcheons . . . . .	\$67 20	\$67 20
K 6976 A	Tokio Bronzed. Packed with Screws to match. Double Doors.	With K 443 A	With K 482 A
		Tokio Bronzed Cup Escutcheons. Per dozen Sets.	Tokio Bronzed Cup Escutcheons. Per dozen Sets.
	Ornamental Tokio Bronzed Front and Strike, Bronze Metal Bolt and Pulls, with Door Stop and 4 Cup Escutcheons . . . . .	\$79 80	\$79 80



## Horizontal Mortise Knob Latches.



Full Size Cut of Nos 4610 and 4611.

Japanned Case.

Right or Left Hand.

Numbers.	$1\frac{1}{4} \times 3\frac{1}{8}$ Inch.	Without Knobs. Per dozen.
<b>4610</b>	Iron Front, Iron Bolt . . . . .	\$1 65
<b>4611</b>	Iron Front, Iron Bolt . . . . .	\$2 25

 $1\frac{1}{2} \times 3\frac{1}{2}$  Inch.

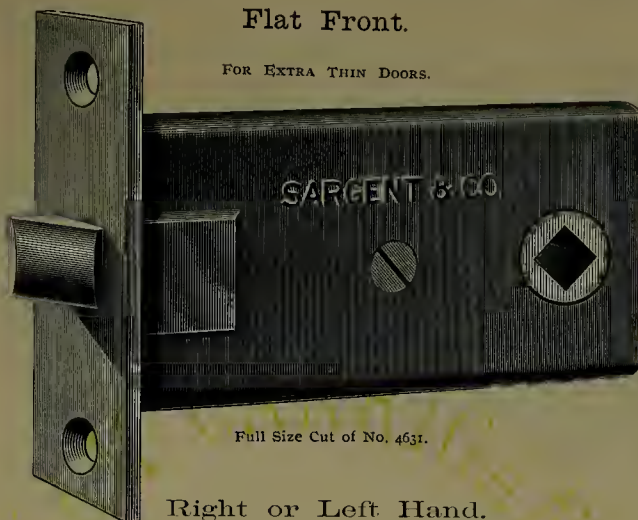
Numbers.	Iron Front.	Without Knobs. Per dozen.	Numbers.	Brass & Bronze Metal.	Without Knobs. Per dozen.
<b>4621</b>	Iron Front, Iron Bolt . . . . .	\$3 10	<b>4623</b>	Brass Front, Iron Bolt . . . . .	\$4 90
<b>4622</b>	" " Brass " . . . . .	4 00	<b>4621</b>	" " Brass " . . . . .	5 60



## Horizontal Mortise Knob Latches.

Flat Front.

FOR EXTRA THIN DOORS.

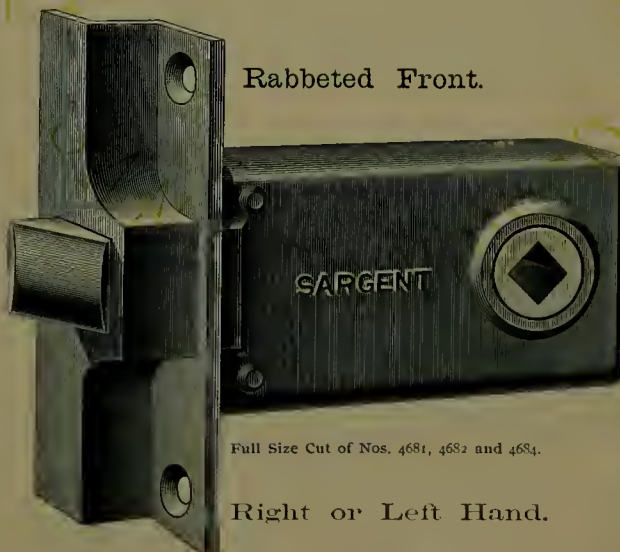


Right or Left Hand.

Japanned Case.

Number.	1 $\frac{3}{4}$ x 3 $\frac{1}{2}$ Inch.	Without Knobs. Per dozen.
4631	$\frac{3}{8}$ inch in thickness for Very Thin Doors, Iron Front, Iron Bolt . . . . .	\$3 50

Rabbeted Front.



Right or Left Hand.

Japanned Case.

Numbers.	1 $\frac{1}{2}$ x 3 $\frac{1}{2}$ Inch.	Without Knobs. Per dozen.
4681	Rabbeted Iron Front, Iron Bolt, Brass Strike . . . . .	\$11 20
4682	" " " Brass " " " . . . . .	12 60
4684	" Brass Front, " " " " . . . . .	19 60

## Horizontal Mortise Knob Latches.



Full Size Cut of Nos. 4651, 4652 and 4654.

Right or Left Hand.

### Japaned Case.

Packed with Brass Thumb Knob and Plate.

<b>Numbers.</b>	<b><math>2\frac{1}{2}</math> x <math>3\frac{1}{2}</math> Inch.</b>	<b>Without Knobs. Per dozen.</b>
<b>#651</b>	Iron Front, Iron Bolts, Brass Thumb Knob and Plate . . . . .	\$ 8 05
<b>#652</b>	" " Brass " " " " " " " " " " " "	9 80
<b>#654</b>	Brass " " " " " " " " " " " "	12 60



## Upright Mortise Knob Latches.

FLAT FRONT.

### Japaned Case.

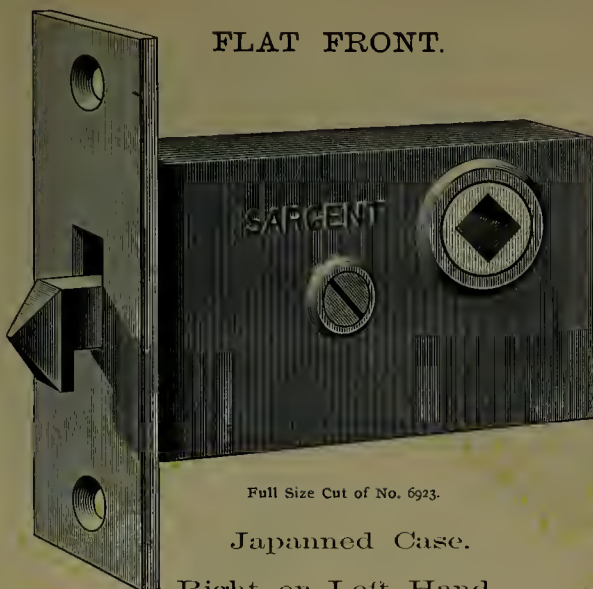
Right or Left Hand.

Numbers.	$2\frac{1}{4} \times 1\frac{1}{2}$ Inch.	Without Knobs. Per dozen.
<b>4617</b>	Iron Front, Brass Bolt, Cast Brass Strike	\$ 9 80
<b>4619</b>	Brass " " " " " "	11 20

Full Size Cut of Nos. 4617 and 4619.

## Sliding Door Latches.

## FLAT FRONT.



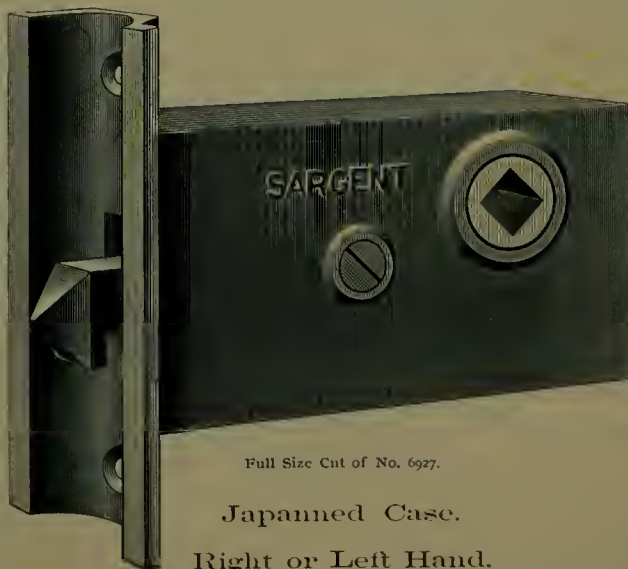
Full Size Cut of No. 6923.

Japanned Case.

Right or Left Hand.

Number.	$1\frac{3}{4} \times 3\frac{1}{4}$ Inch.	Without Knobs. Per dozen.
6923	Brass Front and Strikes, Brass Bolt . . . . .	\$11 90

## ASTRAGAL FRONT.



Full Size Cut of No. 6927.

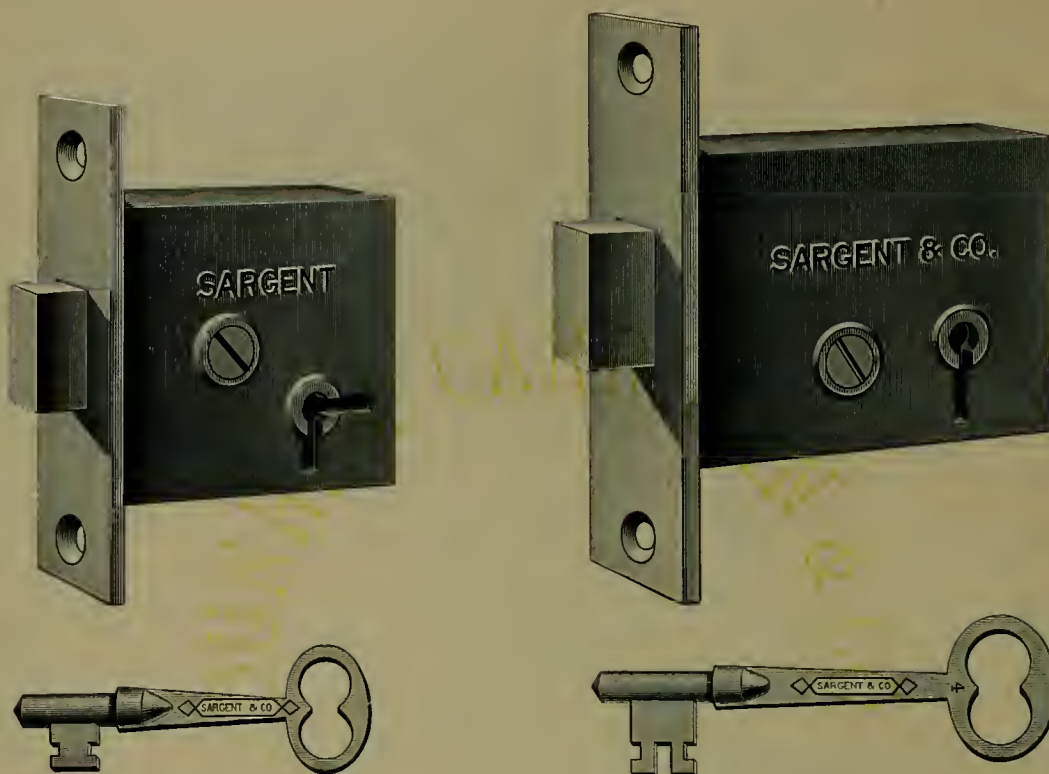
Japanned Case.

Right or Left Hand.

Number.	$1\frac{3}{4} \times 3\frac{1}{2}$ Inch.	Without Knobs. Per dozen.
6927	Brass Front and Strikes, Brass Bolt . . . . .	\$14 00



## Mortise Dead Locks.



Full Size Cut of No. 4910. The Cut shows the Patent Steel Key.

Full Size Cut of Nos. 4924 and 4929. The Cut shows the Patent Steel Key.  
Style 4934 and 4938.

## Japanned Case.

Packed with two Japanned Plate Escutcheons.

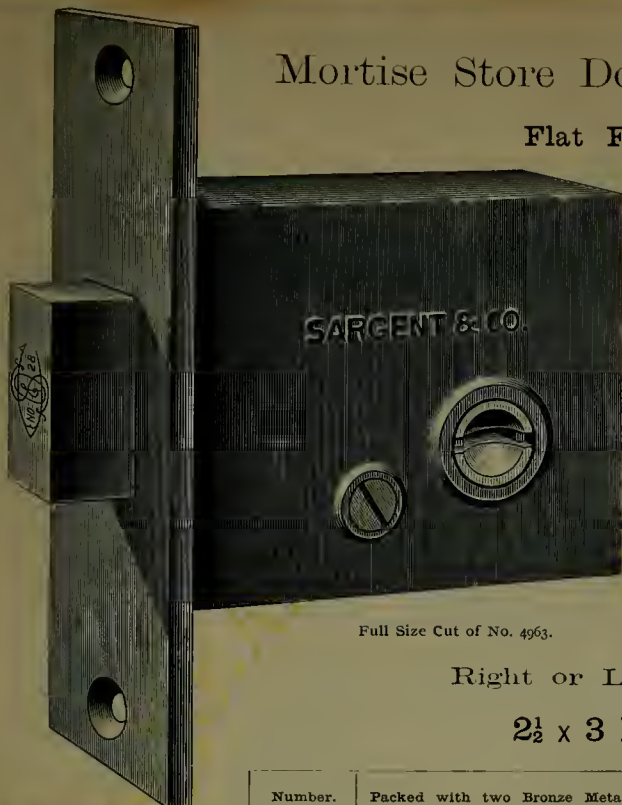
Right or Left Hand.

Numbers.	$1\frac{3}{4} \times 2$ Inch.	Per dozen.
	Cupboard or Drawer.	
<b>4910</b>	Iron Front and Strike, Iron Bolt, Tinned Malleable Iron Key, Double Key Hole, 1 Tumbler	\$ 4 90
	$2 \times 2\frac{1}{2}$ Inch.	
<b>4924</b>	Brass Front and Strike, Brass Bolt, Nickel-Plated Patent Steel Key, 1 Tumbler	\$ 9 10
<b>4929</b>	" " " " " " " " " " 3 "	13 30
	$2\frac{1}{4} \times 3\frac{1}{4}$ Inch.	
<b>4934</b>	Brass Front and Strike, Brass Bolt, Nickel-Plated Patent Steel Key, 1 Tumbler, 24 Changes	\$ 9 80
<b>4938</b>	" " " " " " " " " " 2 " 36 "	11 90

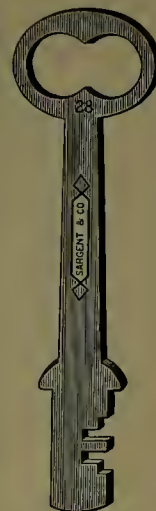


# Mortise Store Door Dead Locks.

Flat Front.



Full Size Cut of No. 4963.



Two Keyed Each.

Right or Left Hand.

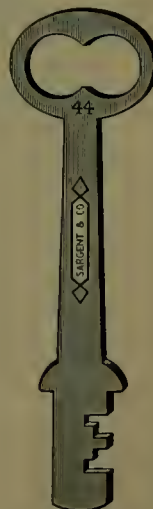
2½ x 3 Inch.

Number.	Packed with two Bronze Metal Round Plate Escutcheons.	Per dozen.
4963	Brass Front, Brass Bolt, 2 Nickel-Plated Flat Steel Keys, 3 Tumblers, 48 Changes	\$35 00

Rabbeted Front.



Full Size Cut of No. 4983.



Two Keyed Each.

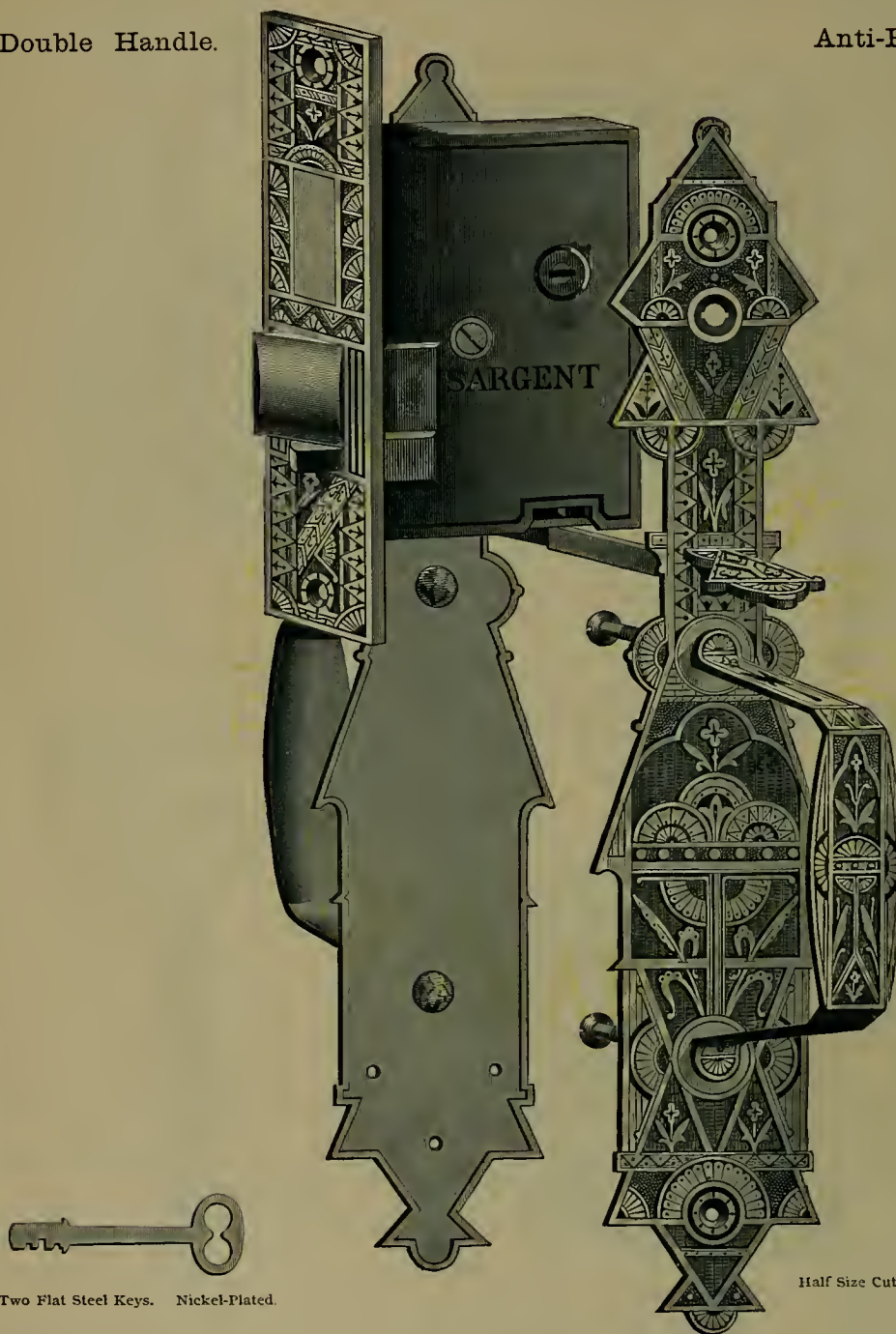
Right or Left Hand. 2½ x 3 Inch.

Number.	Packed with two Bronze Metal Round Plate Escutcheons.	Per dozen.
4983	Rabbeted Brass Front, Brass Bolt, 2 Nickel-Plated Flat Steel Keys, 3 Tumblers, 48 Changes	\$56 00

BERLIN BRONZED.  
Store Door Handles and Lock.

Double Handle.

Anti-Friction Latch.



Two Flat Steel Keys. Nickel-Plated.

Half Size Cut with Latch Not Rabbeted.  
Patented.

Numbers.	Lock, 4½ x 3 Inch.	Per Set.
3473	Not Rabbeted, Bronze Metal Bolts, 3 Tumblers, 2 Flat Steel Nickel-Plated Keys	\$7 50
3479	Rabbeted Front, " " " 3 " 2 " " " " "	8 70

Packed with Screws. Be particular to specify Right Hand or Left Hand, as wanted.





# Rose and Escutcheon Combined.

Ornamental Escutcheon.



Full Size Cut of No. 423 A.

Ornamental Escutcheon.



Full Size Cut of No. 870 A.



Full Size Cut of No. 847 A. Style of Nos. 445 A to 847 A.

## ROSE AND ESCUTCHEONS COMBINED.

Packed with Screws to match.	Berlin Bronzed.		Tokio Bronzed.		Bronze Metal.	
	Nos.	Dozen.	Nos.	Dozen.	Nos.	Dozen.
For all 3½ Inch Mortise Locks . . . . .	445 A	\$2 10	K 445 A	\$2 80	845 A	\$5 88
" " 4 " " " . . . . .	446 A	2 40	K 446 A	3 15	846 A	6 72
" " 4½ " " " . . . . .	.....	.....	.....	.....	847 A	8 40

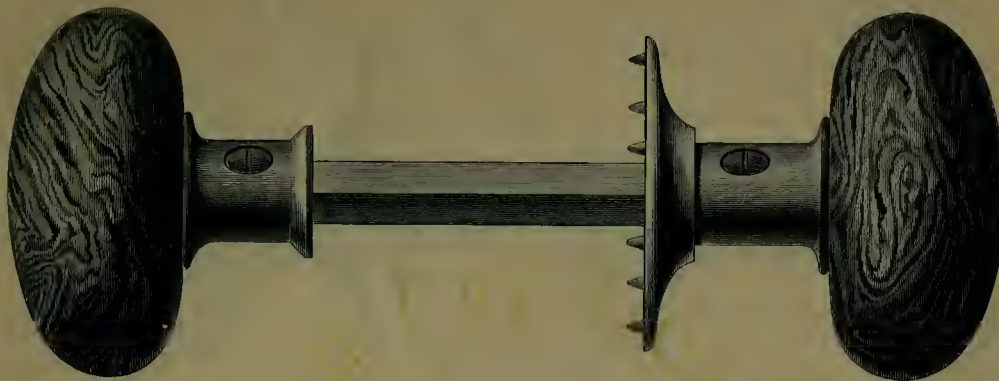
## ORNAMENTAL ESCUTCHEONS.

Packed with Screws to match.	BERLIN BRONZED.		TOKIO BRONZED.		BRONZE METAL.				PLAIN BRONZE METAL.			
					Nat. Lt. Bronze.		M Finish.		Nat. Lt. Bronze.		A Finish.	
PLATE.	Nos.	Dozen.	Nos.	Dozen.	Nos.	Dozen.	Nos.	Dozen.	Nos.	Dozen.	Nos.	Dozen.
For All Rim and Mortise Locks . . . . .	423A	\$0 56	K423A	\$0 70	.....	.....	.....	.....	.....	.....	.....	.....
" " " " " " . . . . .	.....	.....	.....	.....	870A	\$1 68	M 870A	\$1 68	870P	\$2 08	A 870P	\$2 08



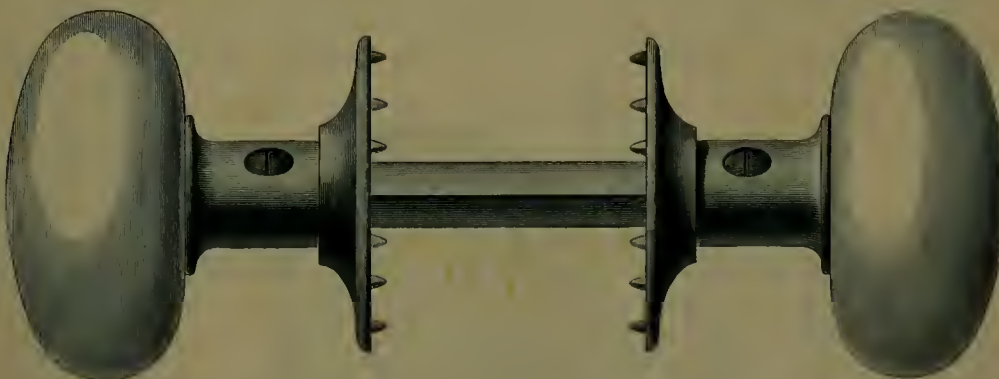
## Door Knobs.

2¼ Inch, 5-16 Inch Spindle.



2¼ Inch RIM KNOBS. Full Size Cut of Mineral Knobs No. 1203.

Numbers.		Mineral.	Per dozen.
MORTISE.	RIM.		
1202	1203	Japanned Mountings . . . . .	\$2 00



2¼ Inch MORTISE KNOBS. Full Size Cut of Porcelain Knobs Nos. 1212, 1712 and 1714.

Numbers.		Porcelain.	Per dozen.
MORTISE.	RIM.		
1212	1213	Japanned Mountings . . . . .	\$2 35
1712	1713	Nickel-Plated Mountings . . . . .	\$6 00
1714	1715	" " " . . . . .	7 00
1722	1723	Porcelain Roses, Nickel-Plated Mountings . . . . .	\$7 00
1724	1725	" " " " " . . . . .	7 80

Knobs with Nickel-Plated Mountings are packed with Screws to match.

## Door Knobs.

2½ Inch, 5-16 Inch Spindle.



2½ Inch MORTISE KNOBS. Full Size Cut of Ebony Knobs Nos. 1232 and 1734.

Numbers.		Ebony.	Per dozen.
MORTISE.	RIM.		
<b>1232</b>	<b>1233</b>	Japanned Mountings . . . . .	\$2 65
<b>1734</b>	<b>1735</b>	Nickel-Plated Mountings . . . . .	\$7 00

Knobs with Nickel-Plated Mountings are packed with Screws to match.

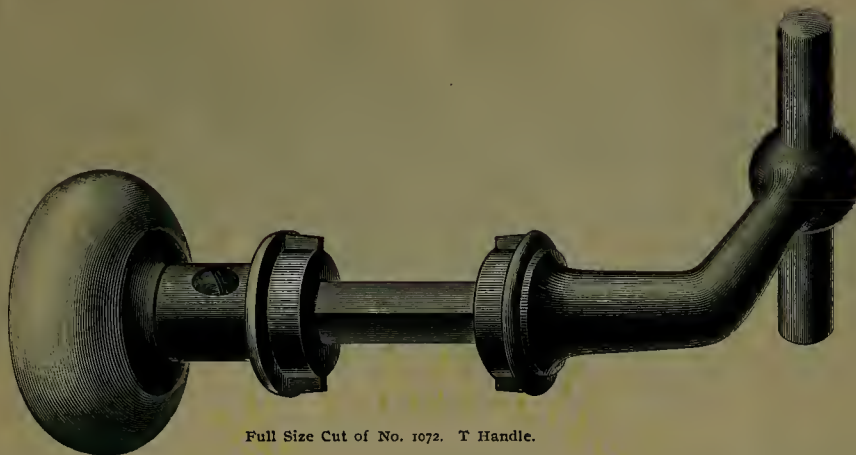


Full Size Cut of Nos. 1434 A to 1835 A.

Numbers.		Ebony.	Per dozen.
MORTISE.	RIM.		
<b>1434 A</b>	<b>1435 A</b>	Berlin Bronzed Mountings . . . . .	\$4 65
<b>K 1434 A</b>	<b>K 1435 A</b>	Tokio " " . . . . .	6 00
<b>1834 A</b>	<b>1835 A</b>	Bronze Metal " . . . . .	8 20

## FRENCH WINDOW

## T Handle, and Crank Handle Knobs.



Full Size Cut of No. 1072. T Handle.

1 $\frac{3}{4}$  Inch Knob, 5-16 Inch Spindle.

Number.	T Handle.	Per dozen.	Number.	Crank Handle.	Per dozen.
<b>1072</b>	Porcelain Knob, Nickel-Plated T Handle . . . . .	\$28 00	<b>1070</b>	Porcelain Knobs, with Nickel-Plated Crank Handle . . . . .	\$21 00

## STORE DOOR

## Crank Handle Knobs.



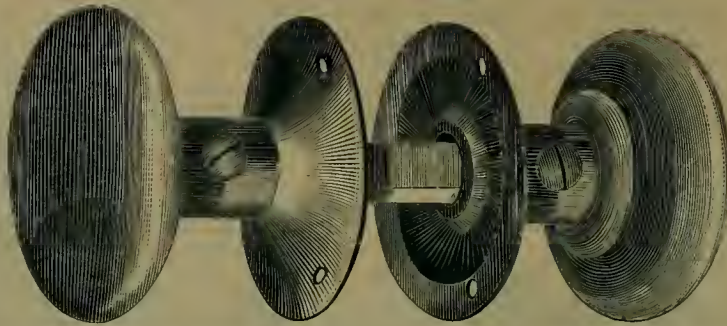
Full Size Cut of Nos. 1113 and 1173.

Numbers.	2 $\frac{1}{4}$ x 1 $\frac{3}{4}$ Inch Knobs, 5-16 Inch Spindle.	Per dozen.
<b>1113</b>	Porcelain Knobs, Japanned Mountings . . . . .	\$10 50
<b>1173</b>	" " Nickel-Plated Mountings, Packed with Screws . . . . .	42 00



# Ship Knobs.

For Rim and Mortise Locks.



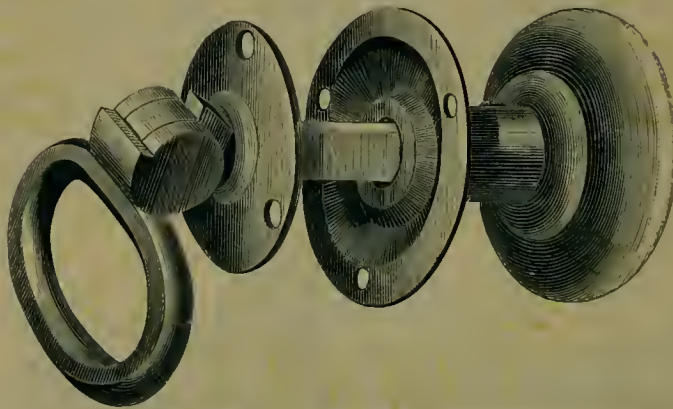
Size.	Brass.	Per dozen.
2 Inch.	With Cast Brass Roses and Wrought Brass Spindles . . . . .	\$12 00

## Porcelain.

2 1/4 Inch.	With Cast Brass Roses and Wrought Brass Spindles . . . . .	\$8 25
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# Knobs and Drop Handles.

For Rim and Mortise Locks.



Size.	Brass.	Per dozen.
2 Inch.	With Cast Brass Roses and Spindles . . . . .	\$14 00
2 1/8 "	" " " " " " . . . . .	16 00

# Cast Brass Escutcheons.



Per dozen . . . . . \$0 50



## Key Plates, Door, Shutter and Drawer Knobs and Door Stops.

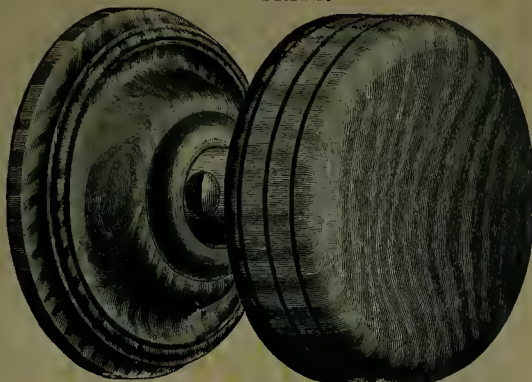
Made regularly in Oak, Walnut and Stained Mahogany, but can be furnished in any style of wood, to match any particular trim, on special order, at slightly increased cost.

Key Plate.



No. 12.

Door Knob.



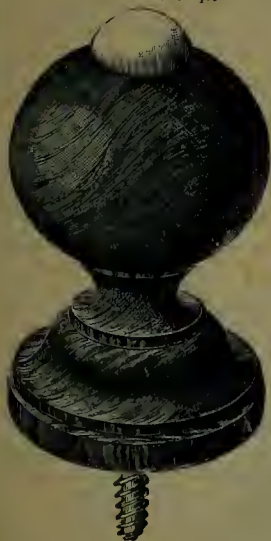
No. 101.

Key Plate.



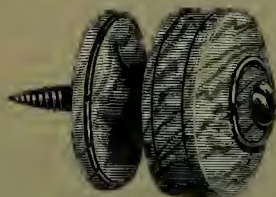
No. 13.

Door Stop.



No. 130.

Shutter and Drawer Knobs.



No. 120.

Door Stop.



No. 134.

## Key Plates.

Numbers.	Size.	Description.	Packed.	Per dozen.
12	1 3/4 x 1 Inch.	Without Drop for Brass Key . . . . .	{ 6 dz. in Paper Box with Bronze Screws, complete . . . . . }	\$0 75
13	1 3/4 x 1 " "	" " " Steel " . . . . .		

## Door Knobs.

101	2 1/4 x 2 1/4 Inch.	With Bronze Shank and Thimble . . . . .	1/2 dz. prs. in Paper Box, with Bronze Screws for Roses, complete . . . . .	\$9 00
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## Shutter and Drawer Knobs.

120	7/8 In. in Diam.	Hand-Turned and Polished . . . . .	2 dz. in Paper Box, with Screws, complete . . . . .	\$0 80
121	1 1/8 " " "			0 90
122	1 3/8 " " "			1 00
123	1 3/4 " " "			1 10

## Door Stops.

130	2 1/2 Inch long.	For Wall or Base . . . . .	3 dz. in Paper Box, complete . . . . .	\$1 25
113	3 1/2 " " "	" " " " " " . . . . .	2 " " " " " " . . . . .	1 50
134		" Floor . . . . .	3 " " " " " " . . . . .	1 50

## Horizontal Rim Knob Latches.



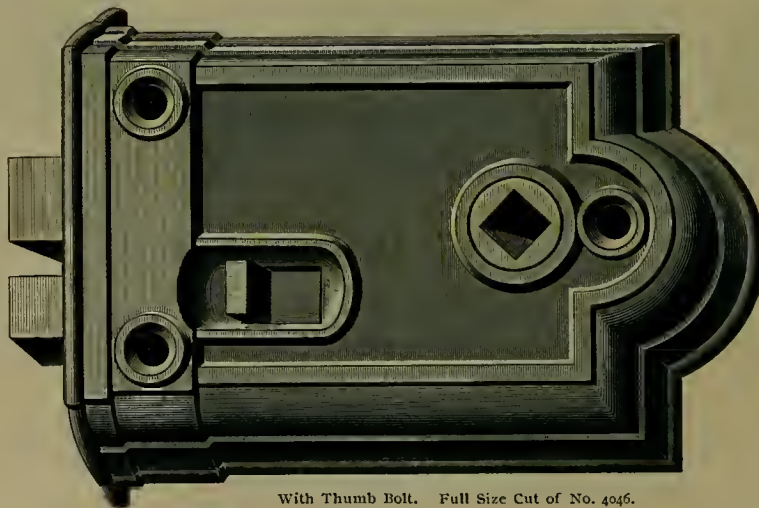
Full Size Cut of No. 4020.

Right or Left Hand.

 $3\frac{1}{2} \times 2\frac{3}{4}$  Inch.

Japanned Case.

Number.	Packed with Screws.	Without Knobs. Per dozen.
4020	Iron Bolt . . . . .	\$2 15



With Thumb Bolt. Full Size Cut of No. 4046.

Right or Left Hand.

4 x  $2\frac{3}{4}$  Inch.

Japanned Case.

Number.	Packed with Screws.	Without Knobs. Per dozen.
4046	Iron Bolt, Iron Thumb Bolt, Flush Thumb Piece . . . . .	\$5 25

## Horizontal Rim Night Latches.



Full Size Cut of No. 4114.

3 x 2½ Inch.

Right or Left Hand.

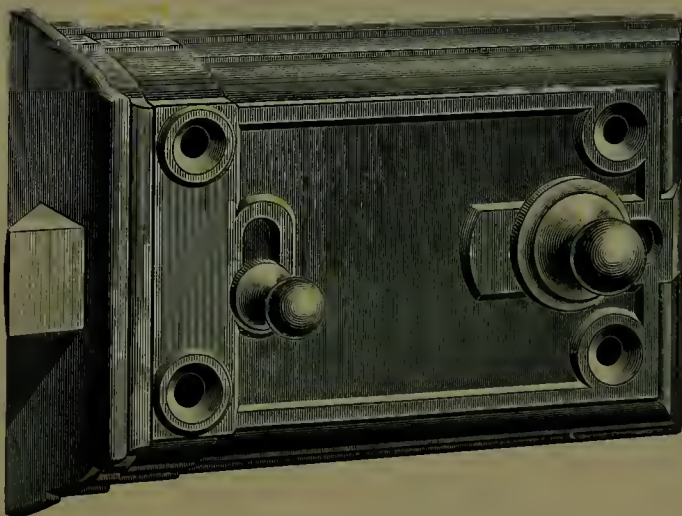
Double Key Hole.

Japanned Case.



Two Keyed Each.

Number.	Packed with Screws, and Japanned Plate Escutcheons.	Per dozen.
4114	Iron Bolt, Draw-Back Bolt, Brass Stop Knob, 2 Nickel-Plated Patent Steel Keys . . .	\$6 30



Full Size Cut of No. 4154.

4 x 2¾ Inch.

Right or Left Hand.

Double Key Hole.

Japanned Case.



Two Keyed Each.

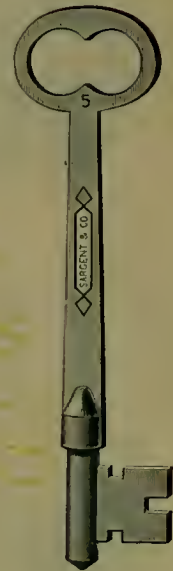
Number.	Packed with Screws, and Japanned Circular Plate Escutcheons.	Per dozen.
4154	Iron Bolt, Brass Slide Knob, Brass Stop Knob, 2 Drilled Brass Keys . . .	\$8 40



## Horizontal Rim Night Latches.



Full Size Cut of No. 4164.



Two Keyed Each.

4 x 2 $\frac{3}{4}$  Inch.

Right or Left Hand.

Double Key Hole.

Japped Case.

Number.	Packed with Screws, and Japped Plate Escutcheons.	Per dozen.
<b>4164</b>	Iron Bolt, Brass Turn Knob, Brass Stop Knob, 2 Nickel-Plated Patent Steel Keys . . .	<b>\$10 85</b>



## "Bohannon" Night Latches.

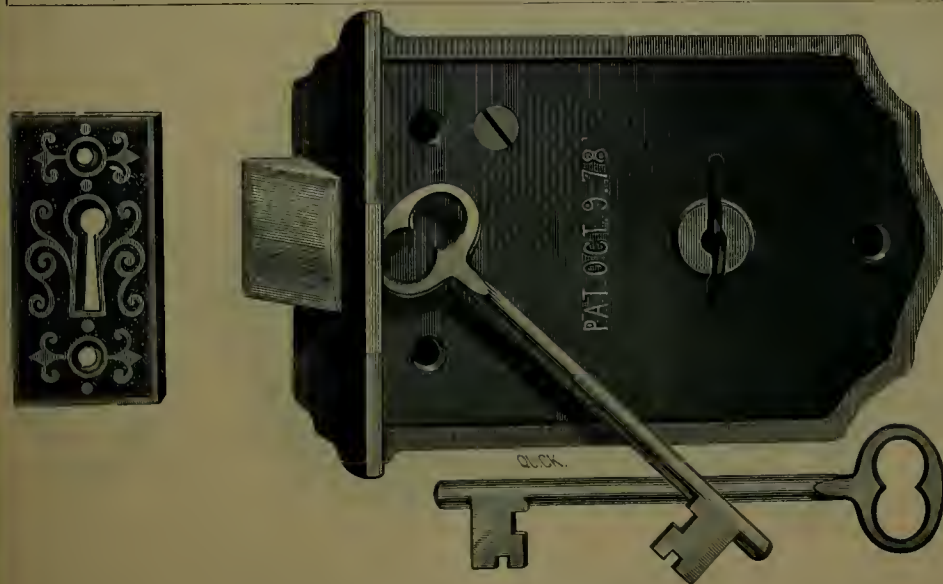
Adjustable to Right or Left Hand Doors.

Plain or Reverse Bevel.



No. 151.

Numbers.	Size.	Patent Horizontal Rim Cylinder.	Per dozen.
151	4½ x 3¼ In.	Japanned Case, Heavy Latch, Extra Heavy Bronze Bolt, Brass Drawback Knob, Nickel-Plated, which stops the Latch by turning, 4 Brass Tumblers, 2 Flat Steel Keys, Ornamental Bronze Escutcheon with Revolving Key Guide	\$17 00
151	4½ x 3¼ "	Same as above, except Case, which is all Nickel-Plated	20 00



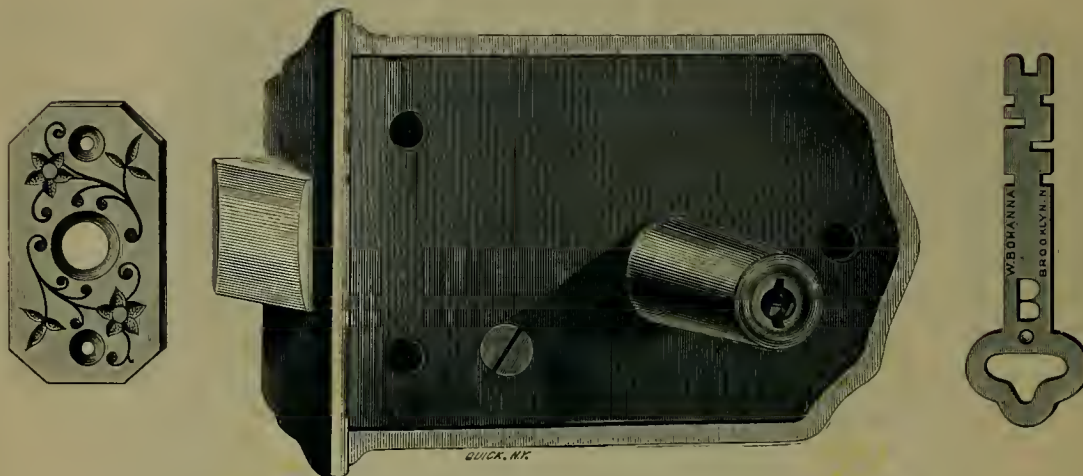
No. 154.

Number.	Size.	Patent Horizontal Rim.	Per dozen.
154	3¾ x 2¼ In.	Iron Bolt, Brass Drawback Knob, Nickel-Plated, which stops the Latch by turning, 2 Keys, Nickel-Plated and Bronzed Escutcheon	\$6 95

## "Bohannon" Night Latches.

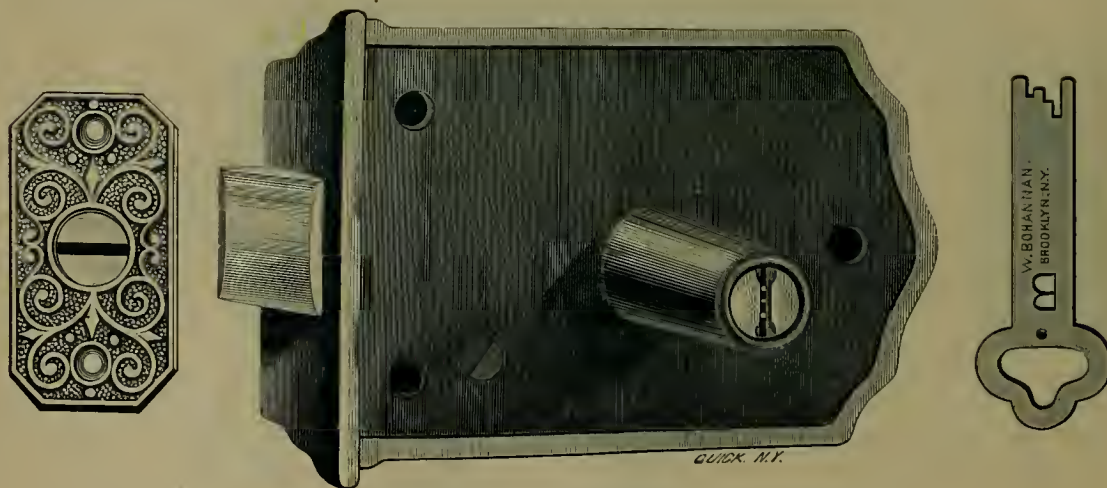
Adjustable to Right or Left Hand Doors.

Plain or Reverse Bevel.



No. 156.

Number.	Size.	New Improved Patent Horizontal Rim Cylinder.	Per dozen.
<b>156</b>	3 $\frac{3}{4}$ x 2 $\frac{3}{4}$ In.	Iron Bolt, Brass Draw-Back Knob, Nickel-Plated, which Stops the Latch by Turning, 2 Flat Steel Keys, Ornamental Bronze Escutcheons	<b>\$10 00</b>



No. 165.

Number.	Size.	New Improved Patent Horizontal Rim Cylinder.	Per dozen.
<b>165</b>	3 $\frac{3}{4}$ x 2 $\frac{3}{4}$ In.	Heavy Bronze Bolt, Brass Draw-Back Knob, Nickel-Plated, which Stops the Latch by Turning, 4 Brass Tumblers, 2 Flat Steel Keys, Ornamental Bronze Escutcheon with Revolving Key Guide	<b>\$14 00</b>



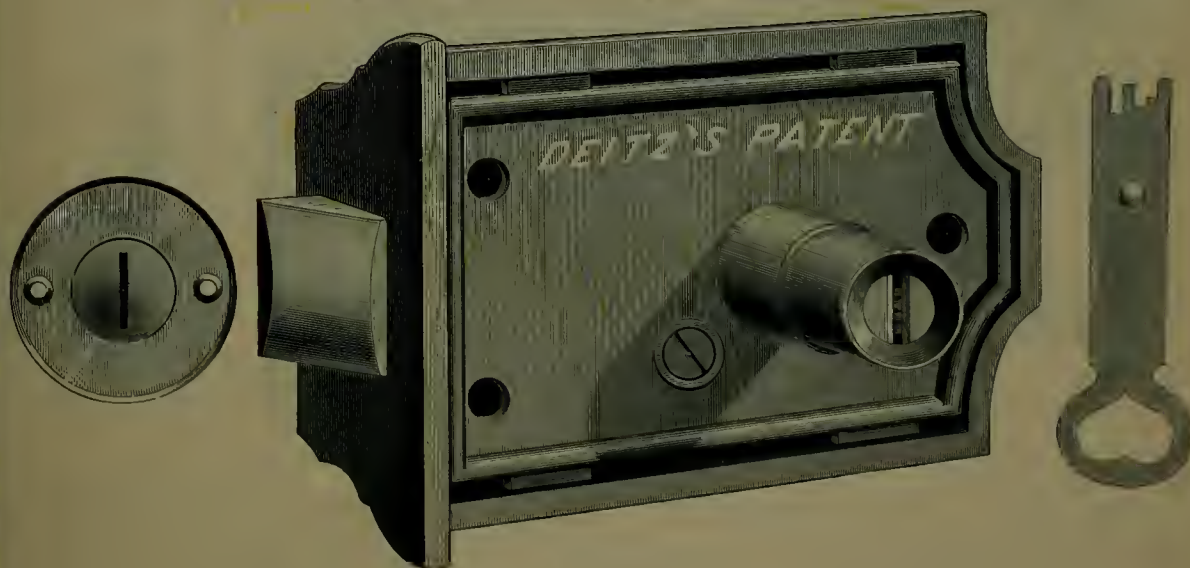
# “Deitz” Night Latches.

Plain or Reverse Bevel.



No. 105.

Number.	Size.	Tubular Rim.	Per dozen.
105	4 $\frac{1}{8}$ x 3 In.	Heavy Japanned Iron Case, Brass Slide and Stop Knobs, Brass Bolt, Bronze Metal Escutcheon, 2 Flat Steel Keys, with variety of changes, 2 Steel double or divided notched Tumblers, 1 $\frac{1}{4}$ , 1 $\frac{1}{2}$ , 1 $\frac{3}{4}$ , 2, or 2 $\frac{1}{2}$ inch Tube	\$15 60



No. 109.

FOR DOORS 1 TO 2  $\frac{3}{8}$  INCHES THICK.

Number.	Size.	Tubular Rim, Swivel Escutcheon.	Per dozen.
109	4 x 3 In.	Heavy Japanned Iron Case, Heavy Bronze Bolt, Bronze Slide and Stop Knobs, 4 Tumblers, 2 Flat Steel Keys, Bronze Metal Swivel Escutcheon	\$15 00

# "Yale" Night Latches.

Adjustable to Right and Left Hand Doors.

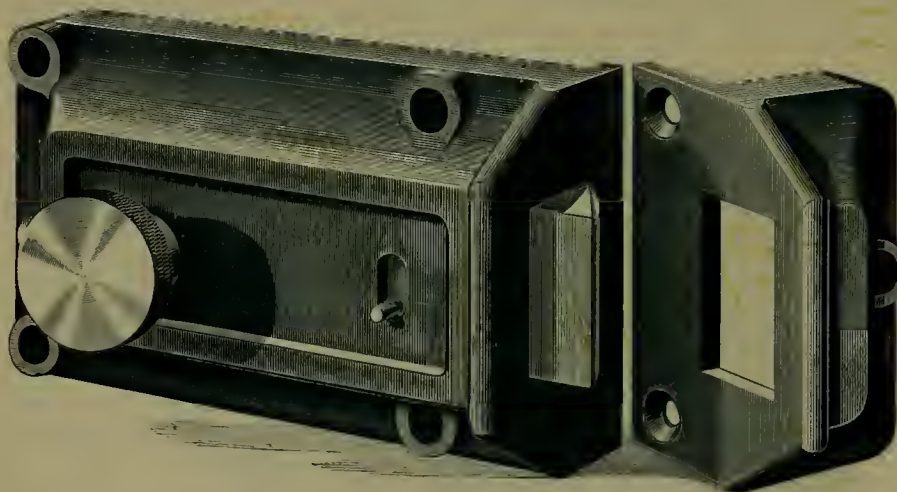
Plain or Reverse Bevel.



Front View of Latch No. 842.



Number.	Size.	Tubular Rim.	Heavy Bronze Bolt.	Each.	Per dozen.
<b>842</b>	2 3/8 x 3 5/8 In.	Japanned Iron Case and Striker, Plain Bronze Tube and Knob, Tubes 1 1/4, 1 1/2, 1 3/4 and 2 inches, with 3 Flat Keys		\$1 75	\$21 00



Nos. 40 to 44.

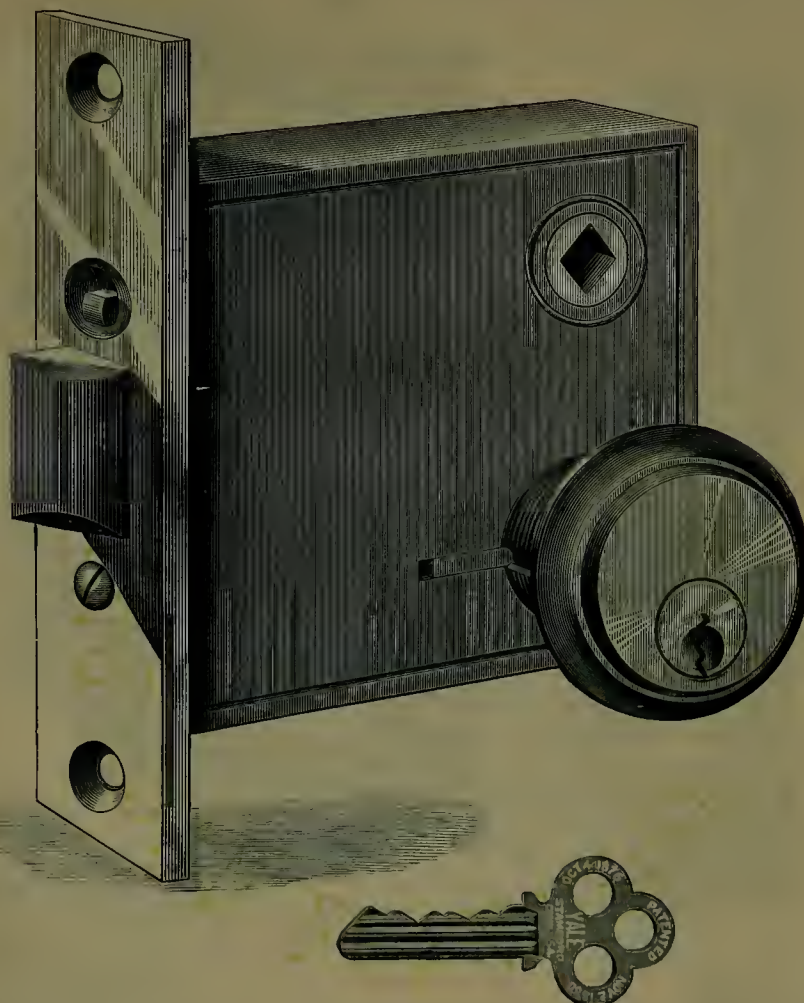


Numbers.	Size.	Horizontal Rim.	Heavy Bronze Bolt.	Each.	Per dozen.
<b>40</b>	2 3/8 x 3 5/8 In.	Japanned Iron Case and Striker, Plated Escutcheon, Plated Knob, with 3 new Corrugated Keys		\$2 75	\$33 00
<b>41</b>	" " " "	Japanned Iron Case and Striker, Plated Escutcheon, Bronze Knob, with 3 new Corrugated Keys		2 50	30 00
<b>42</b>	" " " "	Japanned Iron Case and Striker, Plain Bronze Escutcheon, Bronze Knob, with 3 new Corrugated Keys		2 25	27 00
<b>43</b>	" " " "	Japanned Iron Case and Striker, Ornamental Bronze Escutcheon, Bronze Knob, with 3 new Corrugated Keys		2 50	30 00
<b>44</b>	" " " "	Japanned Iron Case and Striker, Hammered Bronze Escutcheon, Bronze Knob, with 3 new Corrugated Keys		2 50	30 00



# "Yale" Mortise Night Latches.

Adjustable to Right and Left Hand Doors.



Numbers.	3¼ x 3½ Inch, Heavy Bronze Bolt.	Each.	Per dozen.
60	Plated Front, Escutcheon Knob and Knob Rose, with 3 new Corrugated Keys	\$5 75	\$69 00
61			
62	Plain Bronze Front } Plated Escutcheon Knob and Knob Rose, with 3 new Corrugated Keys,	4 50	54 00
63			
64	Plain Bronze Front } Plated Escutcheon, Pearl White Knob, Plated Knob Rose, with 3 new	3 75	45 00
65			
66	Plain Bronze Front } Plain Bronze Escutcheon, Pearl White Knob, Plated Knob Rose, with	3 50	42 00
67			
70	Ornamental Bronze Front, Escutcheon, Knob and Knob Rose, with 3 new Corrugated Keys,	5 25	63 00

## DIRECTIONS FOR ORDERING:

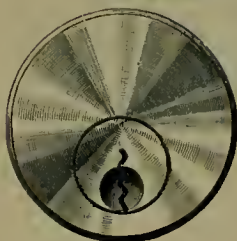
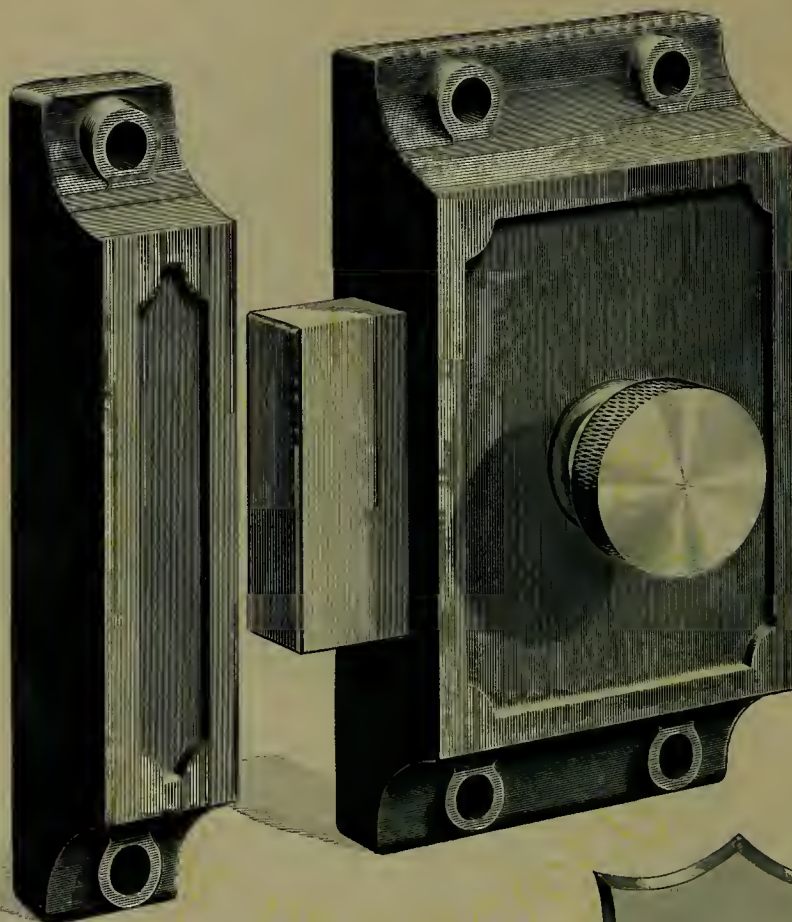
SELECT EVEN Numbers for Doors from 1¼ Inches to 2¼ Inches Thick.  
 " " " " " " " " 2½ " " 3¼ " "

Made also RABBETED, prices on application. When ordering Rabbeted, specify Right or Left Hand, as wanted.

“Yale” Upright Rim Dead Locks,

[LARGE]

Adjustable to Right and Left Hand Doors.



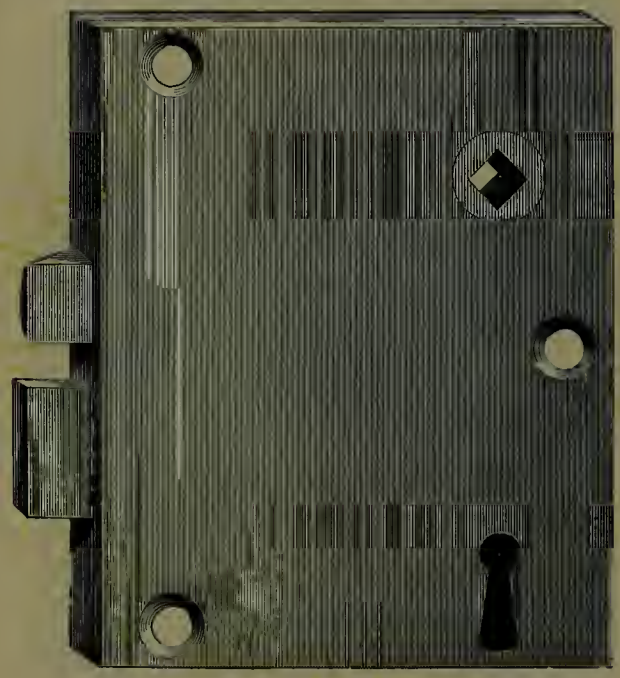
PLAIN BRONZE.  
Escutcheon for Locks 702 and 712.

Numbers.	Size.	Without Knob.	Heavy Bronze Bolt.	Each.	Per dozen.
<b>4</b>	5 x 3 In.	Japanned Iron Case and Striker, Plain Bronze Escutcheon, with 4 new Corrugated Keys,		\$5 50	\$66 00
<b>12</b>	4 x 2½ "	" " " " " " " " " 3 " " "		4 25	51 00
		With Knob.	Heavy Bronze Bolt.		
<b>702</b>	5 x 2½ In.	Japanned Iron Case and Striker, Plain Bronze Escutcheon, Bronze Knob with 3 new Corrugated Keys		\$3 50	\$42 00
<b>712</b>	4 x 2½ "	Japanned Iron Case and Striker, Plain Bronze Escutcheon, Bronze Knob with 3 new Corrugated Keys		3 00	36 00

BRASS

Upright Rim Knob Ship Locks.

With Reversible Latch Bolts.



Cut of 4-Inch Lock. New York Pattern.

New York Pattern.

Numbers.	Size.		Without Knobs. Per dozen.
1	4 x 3 In.	All Brass	\$24 00
2	5 x 3 1/4 "	" "	30 00

Januz Face.

10	4 x 3 In.	All Brass	\$21 00
11	5 x 3 1/4 "	" "	27 00



## BRASS

## Mortise Knob Ship Locks.

[NEW YORK PATTERN]

With Reversible Latch Bolts, for Right or Left Hand Doors.



Cut of 4-Inch Lock.

Numbers.	Size.	Flat Front.				Without Knobs. Per dozen.
		All Brass	.	.	.	
72	4 x 3½ In.	All Brass	.	.	.	\$24 00
73	5 x 3½ "	" "	.	.	.	30 00

## Rabbeted Front.

80	4 x 3½ In.	All Brass	.	.	.	\$40 00
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## Mortise Sliding Door Knob Ship Locks.

[NEW YORK PATTERN]



Numbers.	Size.	New York Pattern.	Without Knobs. Per dozen.
110	4½ x 3¼ In.	Plain Front, all Brass . . . . .	\$36 00

## Extra Fine.

5348	5 x 3½ In.	Plain Front, all Brass, and Brouze inside work, Bronze Key, Hub 5-16 inch . . . Each,	\$1 50
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## BRASS

## ANTI-FRICTION

## Upright Rim Knob Ship Locks.



Plain Bevel.

Number.	Size.	Extra Heavy.			Without Knobs. Per dozen.
216	5 $\frac{3}{4}$ x 3 $\frac{3}{4}$ In.	All Brass, 1 Tumbler, Brass Key	.	.	\$48 00

## BRASS

## ANTI-FRICTION

## Upright Rim Knob Ship Locks.



Reverse Bevel.



Box Striker.

Extra Heavy.

Number.

Size.

216

5 1/4 x 3 1/4 In.

All Brass, 1 Tumbler, Brass Key

Without  
Knobs.  
Per dozen.

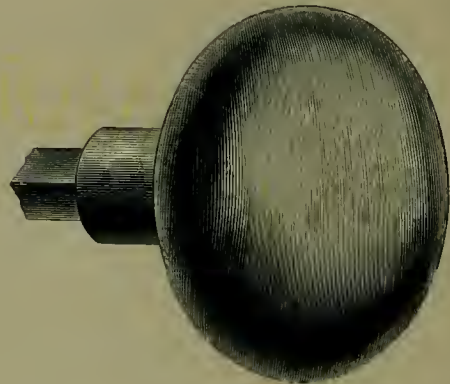
\$54 00





Combined Escutcheon and Rose No. 1906.

**BRASS**  
 Combined Escutcheon and Rose,  
 Knob and Drop Handle  
 for  
**EXTRA HEAVY**  
 Upright Rim Knob Ship Locks.



Knob No. 5408.

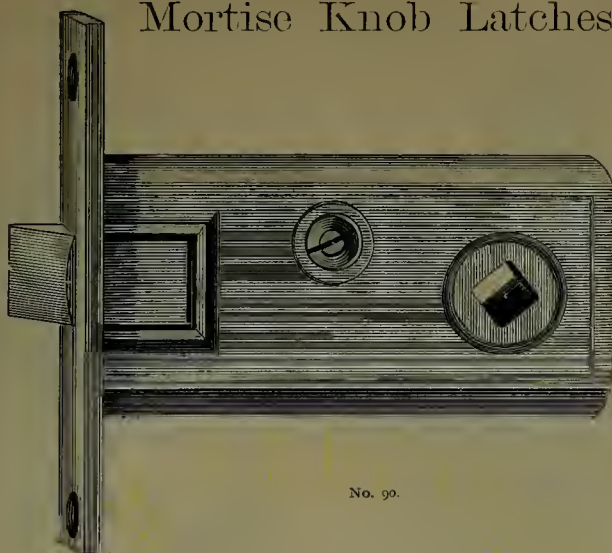


Drop Handle No. 1167.

Numbers.	Size.	Combined Escutcheon and Rose.										Per dozen.
1906	7½ x 2⅜ In.	Polished Brass	.	.	.	.	.	.	.	.	.	\$9 00
Knob.												
5408	2¼ Inch.	Polished Brass, ⅜ Inch Spindle	.	.	.	.	.	.	.	.	.	\$24 00
Drop Handle.												
1167		Polished Brass	.	.	.	.	.	.	.	.	.	\$24 00



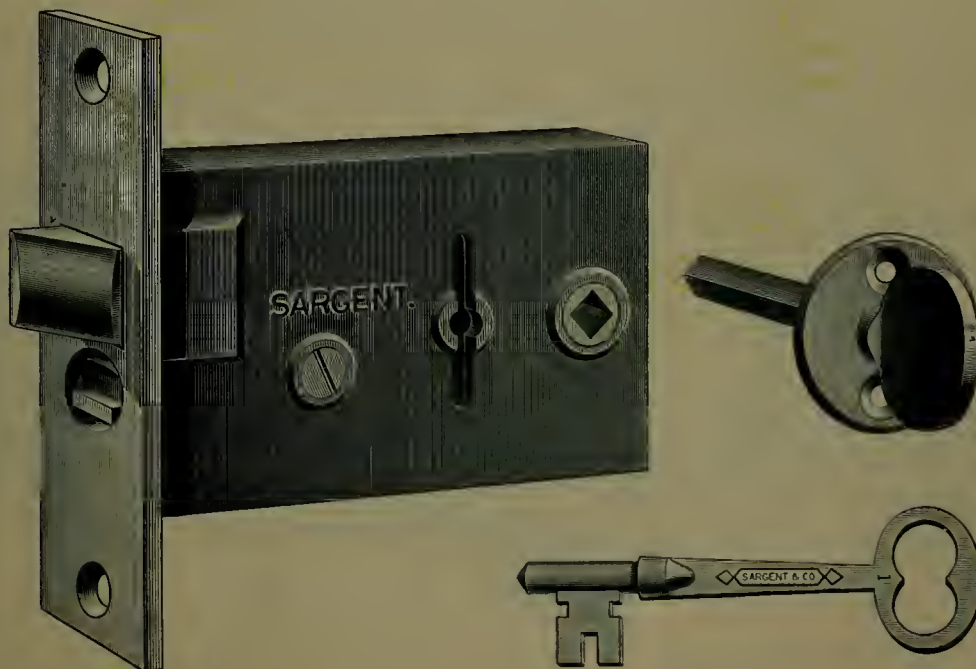
## Mortise Knob Latches.



No. 90.

Number.	Size.	DESCRIPTION.	Per dozen.
90	1½ x 3¼ In.	All Brass, without Knobs,	\$10 00

## Mortise Night Latches.



Full Size Cut of No. 4734. Style of No. 4754.

Two Keyed Each.

Numbers.	Size.	DESCRIPTION.	Per dozen.
4734	2 x 3¼ In.	Brass Front, Brass Bolt, Brass Thumb Knob and Plate, 2 Nickel-Plated Patent Steel Keys,	\$18 20
4754	2½ x 3¼ "	Brass Front, Brass Bolt, Nickel-Plated Thumb Knob and Plate, 2 Nickel-Plated Patent Steel Keys	\$19 95

## Mortise Bolts.



Full Size Cut of Nos. 4891 and 4894.

Plain Front.

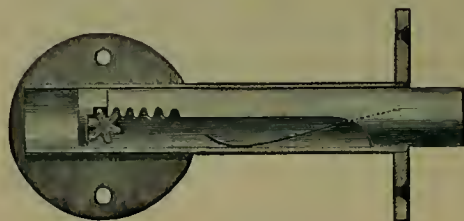
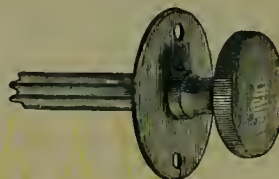
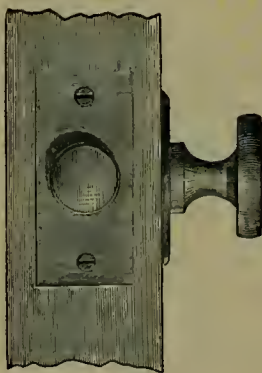


Thumb Knob.

No. 710, Nickel-Plated.

Numbers.	Plain Front and Strike.	Per dozen.
<b>4891</b>	Iron Front, Iron Bolt, with Thumb Knob, No. 710, Nickel-Plated, with Screws	\$ 8 05
<b>4894</b>	Brass " Brass " " " " " 710, " " " "	10 15

"The Gem" Door Bolts.



Sectional Side View.

Numbers.	DESCRIPTION.	Per dozen.
<b>1</b>	Polished Light Bronze Knob	\$6 00
<b>1</b>	Figured " " "	6 00
<b>1</b>	" Dark " "	6 00
<b>2</b>	Full Nickel-Plated	5 10
<b>3</b>	Nickel-Plated Knob, Brass Face Plate and Striker	4 65
<b>4</b>	" " " Finished Iron Face Plate and Striker	4 10

## Wrought Iron Tumbler Padlocks.



No. 100. Old No. 4-0.



No. 122. Old No. 1037.



No. 200. Old No. 3-0.



No. 201. Old No. 2-0.



Numbers.	Size.	DESCRIPTION.	Per dozen.	
			1 Key.	2 Keys.
<b>100</b>	2 Inch.	1 Wheel, 4 Changes, Fancy Key . . . . .	\$1 70	\$1 90
<b>122</b>	2 "	Self-Locking, 4 Changes, Brass Bushing, Revolving Key Pin, Flat Steel Key . . . . .	2 95	3 65
<b>200</b>	2 1/4 "	Plain, without Drop . . . . .	2 50	2 90
<b>201</b>	2 1/4 "	" with Brass Drop . . . . .	2 85	3 25



## Wrought Iron Tumbler Padlocks.



No. 202. Old No. 0.



No. 218. Old No. 1063.



No. 223, Monogram Back. Old No. 1043.



No. 232, Monogram Back. Old No. 1053.

Numbers.	Size.	DESCRIPTION.	Per dozen.	
			1 Key.	2 Keys.
<b>202</b>	2¼ Inch.	4 Changes, Raised Bushing, Brass Drop	\$3 00	\$3 40
<b>218</b>	2¼ "	1 Tumbler, 6 Changes, Brass Bushing, Engraved Drop, 1 Wheel Ward, Revolving Key Pin, Flat Steel Key	5 45	6 50
<b>223</b>	2¼ "	1 Tumbler, 6 Changes, Brass Bushing, Double Chamber, Revolving Key Pin, Double Bitted Flat Steel Key	6 70	7 95
<b>232</b>	2¼ "	Self-Locking, 1 Tumbler, 6 Changes, Brass Bushing, Double Chamber, 1 Ward, Revolving Key Pin, Double Bitted Flat Steel Key	7 10	8 35



## Wrought Iron Tumbler Padlocks.



No. 301. Old No. 1.



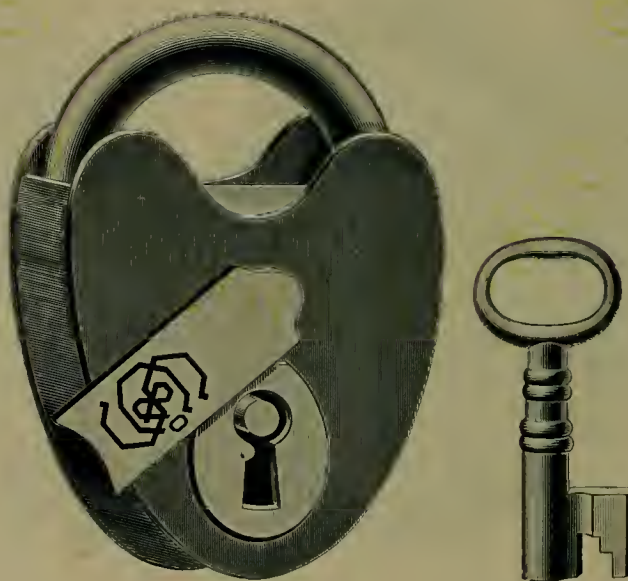
No. 302. Old No. 2.

Numbers.	Size.	DESCRIPTION.	Per dozen.	
			1 Key.	2 Keys.
301	2 1/2 Inch.	Plain, with Brass Drop . . . . .	\$3 50	\$3 90
302	2 1/2 "	6 Changes, Brass Drop and Bushing . . . . .	3 85	4 25

## Wrought Iron Tumbler Padlocks.



No. 303. Old No. 3.



No. 315. Old No. 4.

Numbers.	Size.	DESCRIPTION.	Per dozen.	
			1 Key.	2 Keys.
<b>303</b>	2½ Inch.	6 Changes, Brass Drop and Bushing	\$4 20	\$4 80
<b>315</b>	2½ "	1 Tumbler, 6 Changes, Brass Drop and Bushing, 1 Wheel and Side Ward	4 85	5 50

# Wrought Iron Tumbler Padlocks.



No. 316. Old No. 5.



No. 318. Old No. 1064.

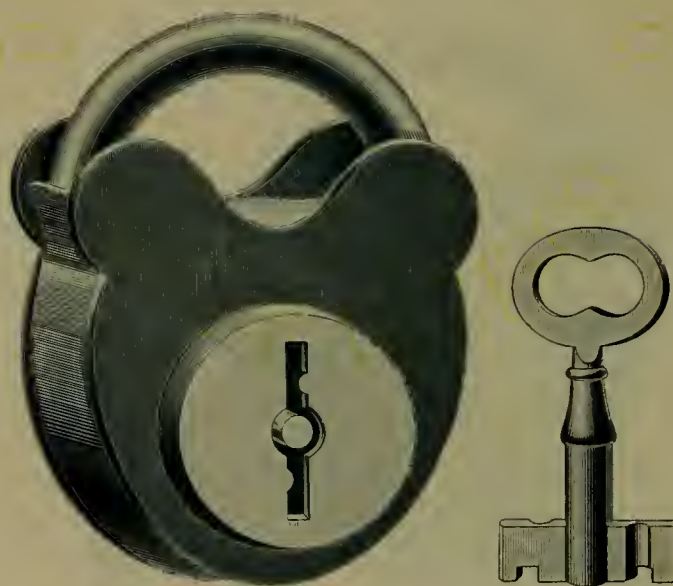
Numbers.	Size.	DESCRIPTION.	Per dozen.	
			1 Key.	2 Keys.
316	2½ Incht.	1 Tumbler, 12 Changes, Brass Drop and Bushing, Wheel and Side Wards	\$5 10	\$6 05
318	2½ "	6 Changes, Engraved Drop, Brass Bushing, Heavy Shackle, Cylinder Key	6 70	7 60



## Wrought Iron Tumbler Padlocks.



No. 321. Old No. 1048.



No. 343, Brass Key. Old No. 1067.

Numbers.	Size.	DESCRIPTION.	Per dozen.	
			1 Key.	2 Keys.
<b>321</b>	2½ Inch.	1 Tumbler, 6 Changes, Brass Drop, Wheel Ward, Self-Locking Spring Shackle,	\$4 60	\$5 00
<b>343</b>	2½ "	1 Tumbler, 6 Changes, Brass Bushing, Wheel and Side Wards, Double Chamber, Double Bitted Brass Key . . . . .	8 35	10 00

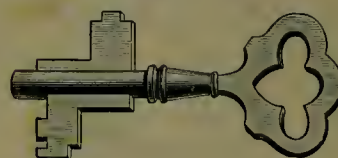
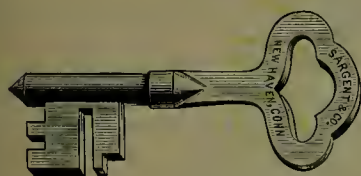
# Wrought Iron Tumbler Padlocks.



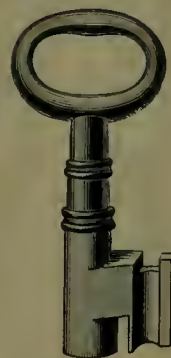
No. 344. Old No. 1004.



No. 357. Old No. 1047.



No. 365. Old No. 6.

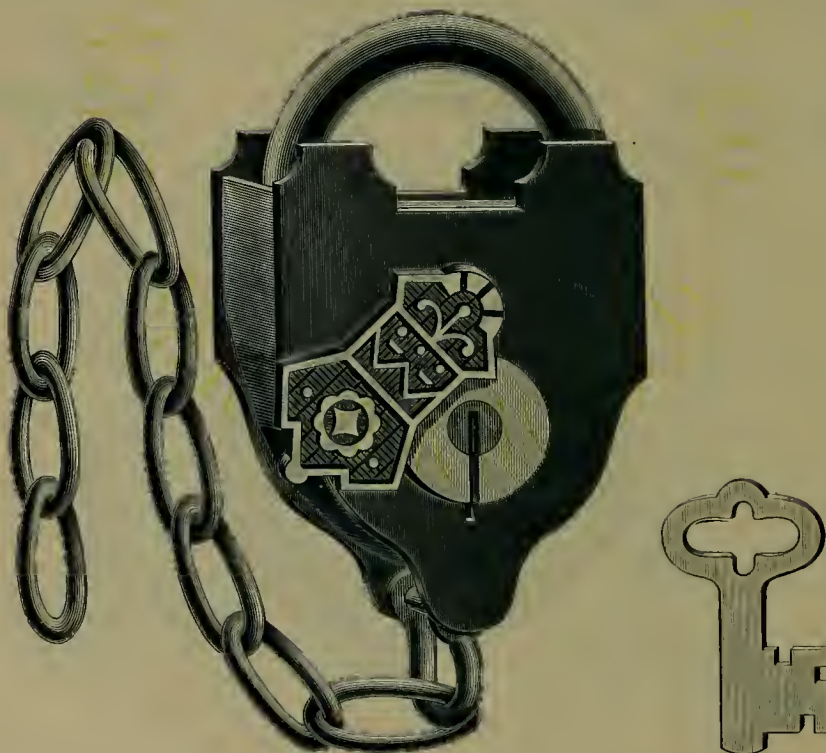


Numbers.	Size.	DESCRIPTION.	Per dozen.	
			1 Key.	2 Keys.
344	2½ Inch.	1 Tumbler, 12 Changes, Brass Bushing, 3 Solid Brass Wheels, Bridge Wards, Nickel-Plated Patent Steel Key, Brass Bushing on Back	\$7 50	\$9 20
357	2½ "	1 Tumbler, 6 Changes, Brass Drop and Bushing, Solid Brass Wheel, Bridge Ward, Revolving Key Tube, Self-Locking Spring Shackle, Double Bitted Key, Brass Bushing on Back	8 35	9 60
365	2½ "	1 Tumbler, 12 Changes, Engraved Drop, Brass Bushing, 1 Wheel and Side Ward,	6 25	7 20

## Wrought Iron Tumbler Padlocks.



No. 386, Monogram Back. Old No. 1031.

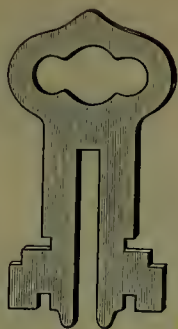


No. 386 C, Monogram Back. Old No. 1032.

Numbers.	Size.	DESCRIPTION.	Per dozen.	
			1 Key.	2 Keys.
<b>386</b>	2½ Inch.	1 Tumbler, 6 Changes, Engraved Drop, Brass Bushing, 1 Wheel Ward, Revolving Key Pin, Heavy Shackle, Flat Steel Key, Monogram Brass Bushing on Back,	\$7 10	\$8 15
<b>386 C</b>	2½ "	Same as No. 386, with Chain	9 20	10 25



## Wrought Iron Tumbler Padlocks.



No. 404, Monogram Back. Old No. 1033.



No. 607. Old No. 1076.

Numbers.	Size.	DESCRIPTION.	Per dozen.	
			1 Key.	2 Keys.
404	2 1/2 Inch.	1 Tumbler, 6 Changes, Brass Bushing, 1 Wheel Ward, Double Chamber, Revolving Key Pin, Double Bitted Flat Steel Key, Monogram Brass Bushing on Back,	\$ 8 35	\$ 9 60
607	2 3/4 "	12 Changes, Engraved Drop, Brass Bushing, Wheel, Side and Bridge Wards, Brass Bushing on Back, Revolving Key Pin, Flat Steel Key	10 00	11 05

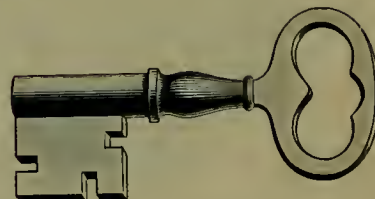
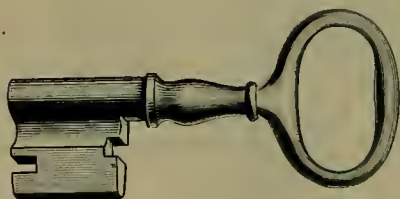
## Wrought Iron Tumbler Padlocks.



No. 702. Old No. 10.



No. 705. Old No. 1008.



Numbers.	Size.	DESCRIPTION.	Per dozen.	
			1 Key.	2 Keys.
<b>702</b>	3 Inch.	6 Changes, Brass Bushing, 1 Wheel and Side Wards	\$6 70	\$7 60
<b>705</b>	3 "	6 " Brass Drop and Bushing, 3 Solid Brass Wheels	8 35	9 45

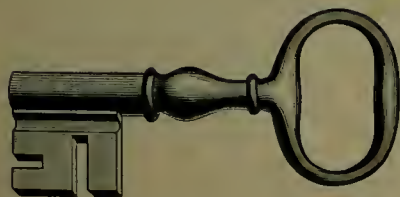
# Wrought Iron Tumbler Padlocks.



No. 715. Old No. 8.



No. 719. Old No. 1039.



Numbers.	Size.	DESCRIPTION.	Per dozen.	
			1 Key.	2 Keys.
715	3 Inch.	1 Tumbler, 12 Changes, Brass Drop and Bushing, Side and Bridge Wards, Solid Brass Wheel	\$9 20	\$10 30
719	3 "	1 Tumbler, 12 Changes, Engraved Drop, Brass Bushing, Wheel, Side and Bridge Wards, Revolving Key Pin, Flat Steel Key	11 70	12 75





# "Eureka" Padlocks.

69



No. 4014.



No. 4016.



No. 4018. Style of No. 4022½.



No. 4021.



No. 4023. Style of No. 4029.

Numbers.	Size.	Brass.	Per dozen.
4014	⅝ Inch.	Self-Locking, Spring Shackle, 2 Flat Steel Keys	\$2 75
4016	1	" " " " 2 Flat Steel Keys assorted, 4 Changes in a Dozen	2 75
4018	1¼	" " " " 2 " " " 5 " " "	3 00
4022½	1¾	" " " " 4 Patent Wards, 2 Flat Steel Keys, all Different in a Dozen,	5 00

Iron.			
4021	1¼ Inch.	Black Japan, Self-Locking Spring Shackle, 2 Flat Steel Keys	\$2 00
4023	2	" " " " 2 " " " 2 " " "	2 50
4029	2¼	" " " " " " 4 Patent Wards, 2 Flat Steel Keys, all Different in a dozen	4 00

# "Bohannon" Patent Spring Padlocks.

MADE OF

CAST BRONZE METAL.



No. 072. Style of Nos. 070 to 074.



No. 525.



No. 075.

Numbers.	Size.	DESCRIPTION.	Per dozen. 24 Keyed.
<b>070</b>	1 1/8 Inch.	Improved Flat Steel Key Lock . . . . .	\$ 5 50
<b>071</b>	1 1/4 " "	" " " " " " . . . . .	6 00
<b>072</b>	1 1/2 " "	" " " " " " 2 Tumblers . . . . .	8 50
<b>073</b>	1 3/4 " "	" " " " " " 2 " " . . . . .	9 75
<b>074</b>	2 " "	" " " " " " 3 " " . . . . .	10 75
<b>075</b>	2 " "	" " " " " " 3 Tumblers, with Chain . . . . .	12 00
<b>525</b>	2 1/4 " "	New Improved Flat Steel Key Lock, Unpolished, 3 Tumblers . . . . .	11 75



# “Bohannon” Patent Spring Padlocks.

MADE OF

CAST BRONZE METAL.



No. 74. Style of No. 82.



No. 85. Style of Nos. 77, 79 and 91.



No. 504.

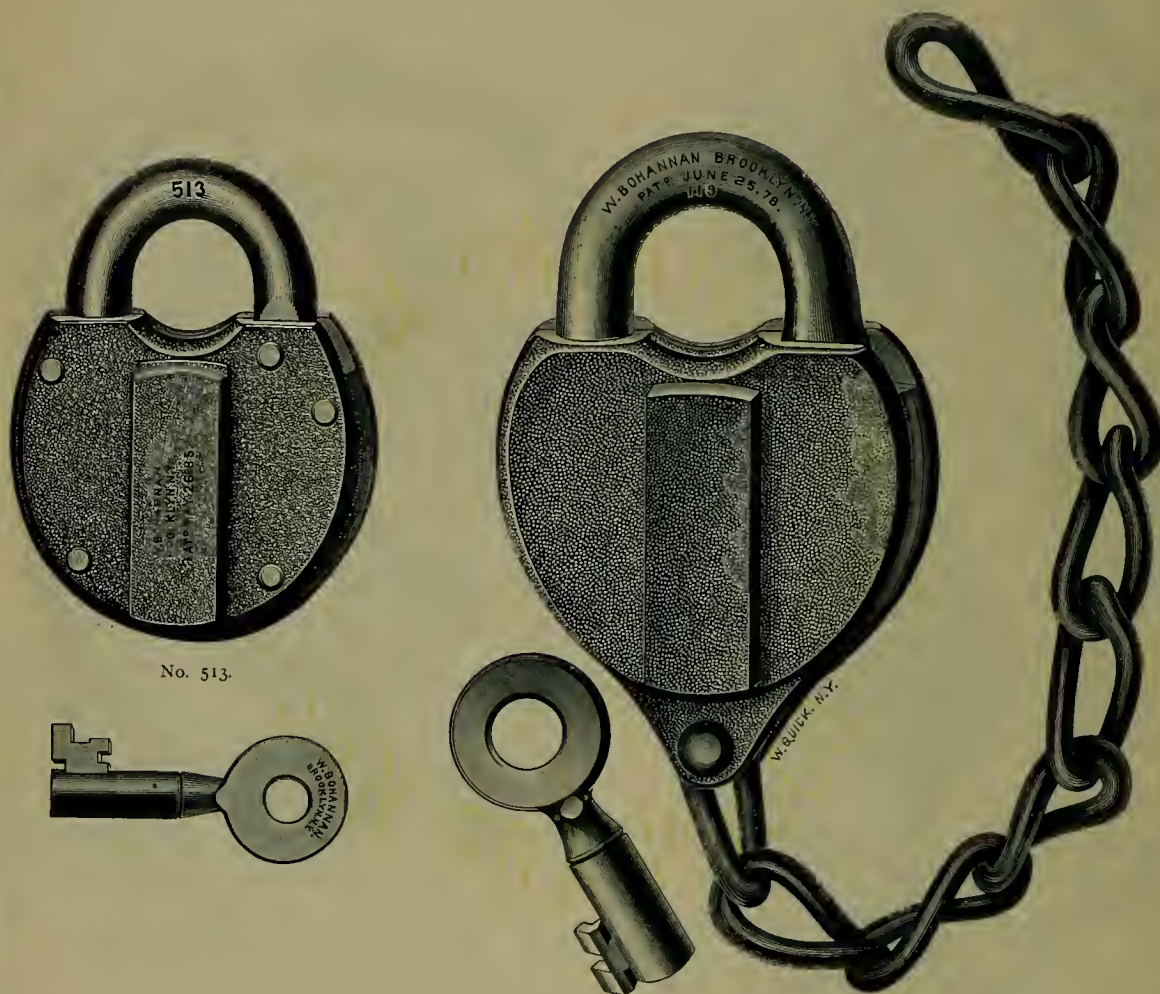
Numbers.	Size.	DESCRIPTION.	Per dozen. 24 Keyed.
74	2 Inch.	Tumbler Lock, Plain Cover over Key Hole, Brass Keys	\$ 9 50
77	2 "	" " Spring Cover and Chain " " "	11 75
79	2 1/4 "	" " Plain Cover " " "	11 50
82	2 1/2 "	" " Plain Cover " " "	11 75
* 85	2 1/2 "	" " " " and Chain " " "	14 00
91	2 3/4 "	Heavy Tumbler Lock, Spring Cover and Chain " " "	21 50
504	1 1/4 "	Tumbler Lock, Unpolished, with 12 Inch Chain and Ring, Brass Keys	7 50

\*No. 85 to Pass, when Ordered.

# "Bohannon" Patent Spring Padlocks.

MADE OF

CAST BRONZE METAL.



No. 513.

No. 119. Improved Switch Lock.

Numbers.	Size.	DESCRIPTION.	Per dozen. 24 Keyed.
<b>103</b>	1½ Inch.	Tumbler . . . . . Brass Key .	\$ 6 25
<b>104</b>	1¾ "	" . . . . . " "	7 50
<b>105</b>	2¼ "	" . . . . . " "	9 25
* <b>119</b>	2½ "	Heavy Tumbler Lock, Unpolished, with Chain for R. R. Cars and Switches, Brass Keys,	15 50
* <b>513</b>	2¼ "	New Improved Tumbler Lock, Unpolished, Spring Cover . . . . . " "	11 25

\*Nos. 119 and 513 to Pass, when Ordered.



# Yale "Standard" Spring Padlocks.

MADE OF

CAST BRONZE METAL.



No. 813.



No. 843.



No. 8053.



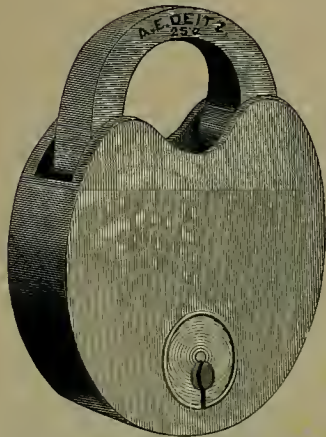
Numbers.	Size.	DESCRIPTION.	Per dozen.
<b>813</b>	1 Inch.	Bronze Shackles, 3 Brass Tumblers, 54 Changes, 2 Nickel-Plated Flat Steel Keys	\$12 00
<b>823</b>	1 1/4	" " 3 " " 54 " 2 " " " " " "	13 20
<b>833</b>	1 1/2	" " 3 " " 54 " 2 " " " " " "	14 40
<b>843</b>	1 3/4	" " 4 " " 82 " 2 " " " " " "	15 60
<b>853</b>	2	" " 4 " " 144 " 2 " " " " " "	17 40
<b>863</b>	2 1/4	" " 4 " " 144 " 2 " " " " " "	19 20

With Chain.

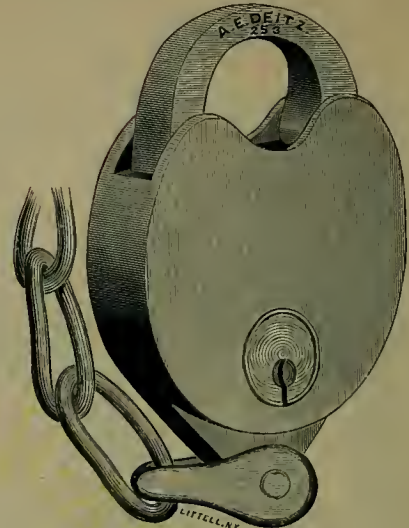
<b>8013</b>	1 Inch.	Bronze Shackles, 3 Brass Tumblers, Brass Chain, 2 Nickel-Plated Flat Steel Keys	\$13 80
<b>8023</b>	1 1/4	" " 3 " " " " 2 " " " " " "	15 00
<b>8033</b>	1 1/2	" " 3 " " Tinned " 2 " " " " " "	16 20
<b>8043</b>	1 3/4	" " 4 " " " " 2 " " " " " "	17 40
<b>8053</b>	2	" " 4 " " " " 2 " " " " " "	19 20
<b>8063</b>	2 1/4	" " 4 " " " " 2 " " " " " "	21 00



# "Deitz" Bronze Metal Spring Padlocks.



No. 252. Style of Nos. 231 and 262.



No. 263, with Chain.

Numbers.	Size.	DESCRIPTION.				Per dozen.
<b>231</b>	1½ Inch.	2 Tumblers, 2 Flat Steel Keys	.	.	.	\$10 00
<b>252</b>	2½ " "	3 " 2 " " "	.	.	.	13 50
<b>262</b>	2¼ " "	3 " 2 " " "	.	.	.	15 00
<b>263</b>	2¼ " "	3 " 2 " " " Tinned Chain	.	.	.	17 40

## "HORSE SHOE" PATTERN

### Bronze Metal Spring Padlocks.



No. 610.



## "CHAMPION"

### Bronze Metal Padlocks.



No. 7.



Number.	Size.	DESCRIPTION.	Per dozen.
<b>610</b>	2¼ Inch.	2 Flat Steel Keys . .	\$7 50

Numbers.	Size.	DESCRIPTION.	Per dozen.
<b>7</b>	2¼ Inch.	6 Tumblers, 2 Keys . . .	\$13 00
<b>20</b>	2¼ " "	6 " 2 " Nickel-Pl't'd	14 00
<b>30</b>	2½ " "	7 " 2 " . . .	18 50

## Dog Collar Padlocks.

SPRING.



One Dozen in a Box.

SCANDINAVIAN.



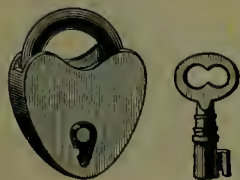
One Dozen in a Box.

Numbers.	Size.	DESCRIPTION.	Per dozen.
<b>20</b>	$\frac{5}{8}$ Inch.	Brass . . . .	\$1 00
<b>21</b>	$\frac{3}{4}$ "	" . . . .	1 00
<b>22</b>	$\frac{5}{8}$ "	Nickel-Plated . . . .	1 40
<b>23</b>	$\frac{3}{4}$ "	" . . . .	1 40

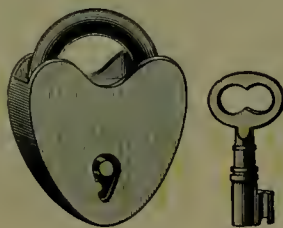
Number.	Size.	DESCRIPTION.	Per dozen.
<b>301</b>	$\frac{3}{8}$ Inch.	Gilt . . . . .	\$4 00
<b>302</b>	$\frac{3}{4}$ "	" . . . . .	6 50
<b>303</b>	$\frac{3}{8}$ "	Nickel-Plated . . . . .	5 00
<b>304</b>	$\frac{3}{4}$ "	" . . . . .	8 00

## Small Padlocks.

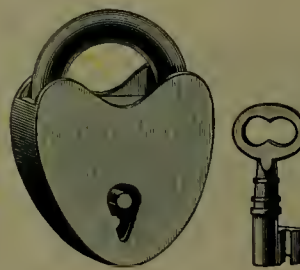
## WITH KEYS.



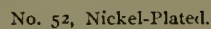
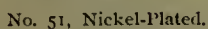
No. 40, Brass.



No. 41, Brass.



No. 42, Brass.

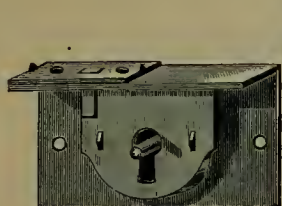


Numbers.	Size.	Brass.	Per dozen.
40	$\frac{3}{8}$ Inch.	American Pattern	\$3 75
41	$\frac{3}{4}$ "	" "	3 75
42	1 "	" "	4 20
43	$1\frac{1}{8}$ "	" "	4 60
44	$1\frac{1}{4}$ "	" " With Closing Key Hole	5 00
45	$1\frac{1}{2}$ "	" " " " " "	5 45

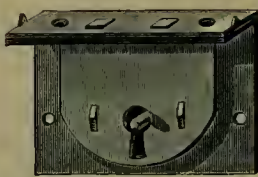
Nickel-Plated.

51	5/8 Inch.	American Pattern . . . . .	\$5 85
52	3/4 " "	" " . . . . .	5 85

## Brass and Iron Chest Locks.



No. 01. Style of No. 02.



No. 050.



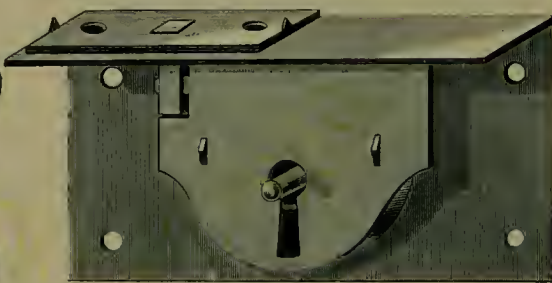
No. 2.



No. 39. Style of No. 40.



No. 32. Style of Nos. 34 and 36.



No. 8.



Numbers.	Size.	Iron.	Per dozen.
<b>2</b>	1½ Inch.	¾ Inch from Selvege to Key Pin	\$0 68
<b>8</b>	3 "	1 Ward, ⅞ Inch from Selvege to Key Pin	1 00
<b>13</b>	3½ "	Same as No. 8, Assorted, 6 Changes in a Dozen, Screwed	2 00
<b>32</b>	2 "	1 Ward, ¾ Inch from Selvege to Key Pin	1 88
<b>34</b>	2½ "	1 " Assorted, Fancy, 6 Changes in a Dozen, ⅞ In. from Selvege to Key Pin	2 12
<b>36</b>	3 "	1 " " " 6 " " 1 " " " " " "	2 37
<b>39</b>	3½ "	1 " Fancy, all Different, Screwed, 1½ In. from Selvege to Key Pin	3 25
<b>40</b>	4 "	1 " " " " " 1¼ " " " " " "	4 00

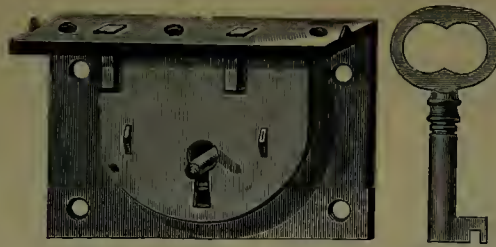
## Brass.

<b>01</b>	1¼ Inch.	¾ Inch from Selvege to Key Pin	\$0 75
<b>02</b>	1½ "	¾ " " " " " " " " " "	0 75
<b>050</b>	1¼ "	Square Selvege, ½ Inch from Selvege to Key Pin	2 38

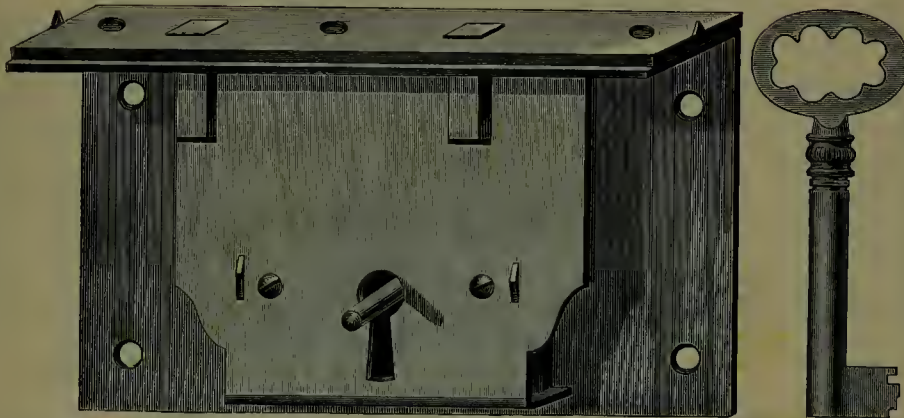


# Iron Chest Locks.

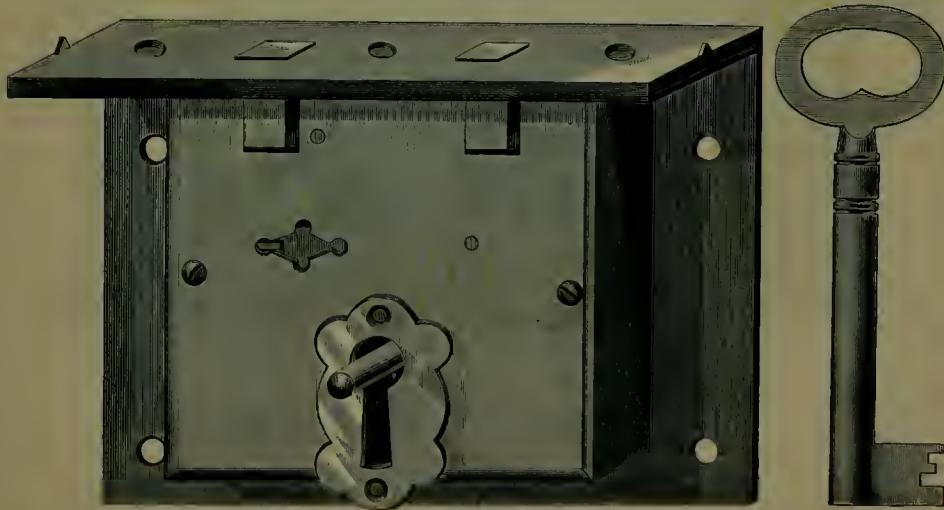
77



No. 53. Style of No. 56.



No. 74.



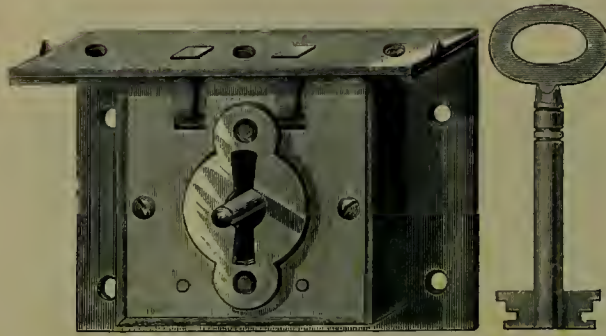
No. 76.

Numbers.	Size.	Double Link.	Per dozen.
53	2 Inch.	1 Ward, Tumbler, $\frac{3}{4}$ Inch from Selvedge to Key Pin	\$ 2 25
56	2 $\frac{3}{4}$ "	1 " Fancy, Assorted, 6 Changes in a Dozen, $\frac{7}{8}$ Inch from Selvedge to Key Pin,	2 62
74	4 "	Screwed, 2 Secure Levers, Fine Flat Bow Keys, all Different, $1\frac{1}{2}$ Inch from Selvedge to Key Pin	4 75
76	4 "	Extra Heavy, Square Selvedge, Screwed, Solid Box, 4 Secure Levers, Fine Flat Bow Keys, all Different, Brass Escutcheons, $1\frac{3}{4}$ Inch from Selvedge to Key Pin	10 00

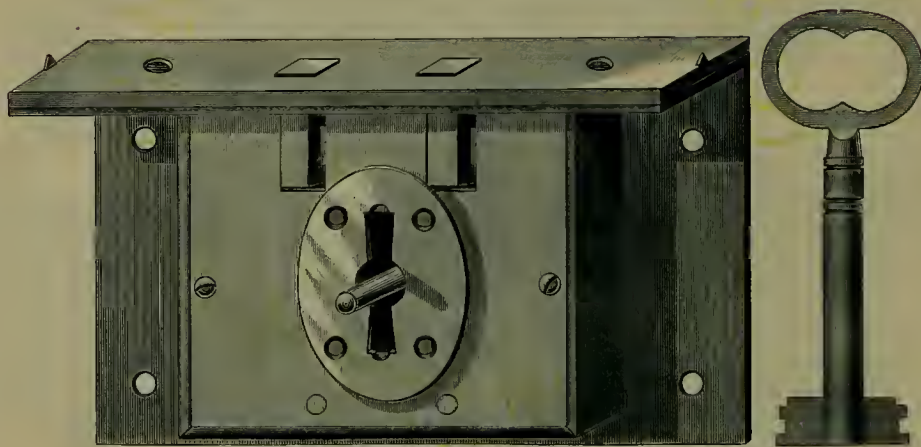
# Brass and Iron Self-Locking Chest Locks.

## DOUBLE BITTED KEYS.

Double Link.



No. 80.



No. 82. Style of No. 83.

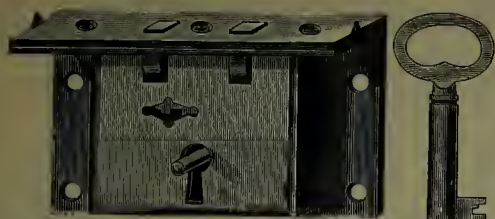
Numbers.	Size.	Iron.	Per dozen.
<b>80</b>	2½ Inch.	Square Selvedge, Screwed, Solid Box, Secret Wards, Double Bitted Keys, all Different, Brass Escutcheons, ¾ Inch from Selvedge to Key Pin	\$4 75
<b>82</b>	4 "	Same as No. 80, 1½ " " " " " " " " " " " "	6 00
<b>83</b>	4 "	Square Selvedge, Screwed, Solid Box, 4 Catches, Secret Wards, Double Bitted Keys, all Different, Brass Escutcheons, 1½ Inch from Selvedge to Key Pin	8 00

## Brass.

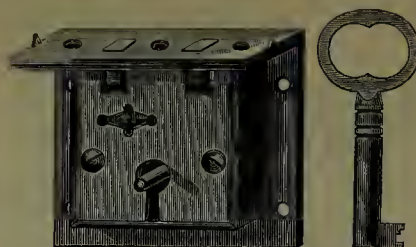
<b>080</b>	2½ Inch.	Same as No. 80	\$ 6 25
<b>083</b>	4 "	" " " 83	13 00

# Brass and Iron Chest Locks.

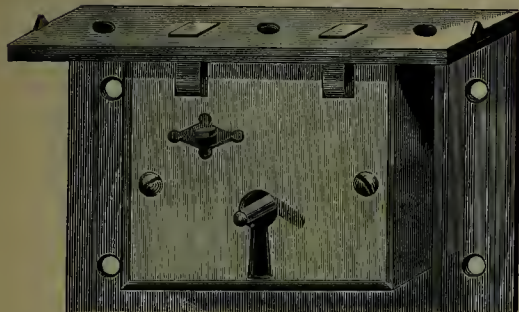
79



No. 063.



No. 100. Style of Nos. 102 and 104.



No. 105. Style of Nos. 106 to 111.



No. 124. Style of No. 130.



Double Link.



Numbers.	Size.	Iron.	Per dozen.
<b>100</b>	1½ Inch.	Square Selvedge, Screwed, Solid Box, 2 Secure Levers, Fine Flat Bow Keys, all Different, ¾ Inch from Selvedge to Key Pin	\$3 00
<b>102</b>	2 "	Square Selvedge, Screwed, Solid Box, 2 Secure Levers, Fine Flat Bow Keys, all Different, ¾ Inch from Selvedge to Key Pin	3 25
<b>104</b>	2½ "	Square Selvedge, Screwed, Solid Box, 2 Secure Levers, Fine Flat Bow Keys, all Different, 1 Inch from Selvedge to Key Pin	3 50
<b>105</b>	2¾ "	Square Selvedge, Screwed, Solid Box, 2 Secure Levers, Fine Flat Bow Keys, all Different, 1 Inch from Selvedge to Key Pin	3 75
<b>106</b>	3 "	Square Selvedge, Screwed, Solid Box, 2 Secure Levers, Fine Flat Bow Keys, all Different, 1½ Inch from Selvedge to Key Pin	4 00
<b>109</b>	3½ "	Square Selvedge, Screwed, Solid Box, 2 Secure Levers, Fine Flat Bow Keys, all Different, 1¾ Inch from Selvedge to Key Pin	4 50
<b>111</b>	4 "	Square Selvedge, Screwed, Solid Box, 2 Secure Levers, Fine Flat Bow Keys, all Different, 1½ Inch from Selvedge to Key Pin	7 00
<b>124</b>	2½ "	Square Selvedge, Screwed, Solid Box, 2 Secure Levers, Solid Nickel Bit Keys, all Different, 1 Inch from Selvedge to Centre of Tube	7 00
<b>130</b>	3½ "	Square Selvedge, Screwed, Solid Box, 2 Secure Levers, Solid Nickel Bit Keys, all Different, 1¾ Inch from Selvdge to Centre of Tube	9 00

## Brass.

<b>0100</b>	1½ Inch.	Same as No. 100	\$3 50
<b>0102</b>	2 "	" " " 102	3 75
<b>0105</b>	3¾ "	" " " 105	4 25
<b>0106</b>	3 "	" " " 106	4 50
<b>0111</b>	4 "	" " " 111	8 00

## All Brass.

<b>063</b>	2 Inch.	Square Selvedge, Solid Box, 1 Secure Lever, Fine Flat Bow Brass Keys, Assorted, 4 Changes in a Dozen, ¾ Inch from Selvedge to Key Pin	\$ 3 00
<b>0107</b>	3 "	Same as No. 106, Brass Keys	5 75
<b>0112</b>	4 "	" " " 111, " "	10 00



## Brass Chest Locks.



No. 0150.



No. 0153. Style of No. 0154.



No. 0155. Style of No. 0156.



No. 0158. Style of Nos. 0159 and 0162.

Numbers.	Size.	Double Link.	Per dozen.
<b>0150</b>	1½ Inch.	Square Selvedge, Screwed, Solid Box, 2 Secure Levers, Fine Flat Bow Keys, all Different, ¾ Inch from Selvedge to Key Pin	\$ 9 00
<b>0153</b>	2½ "	Square Selvedge, Screwed, Solid Box, 2 Secure Levers, Fine Flat Bow Keys, all Different, 1 Inch from Selvedge to Key Pin	10 00
<b>0154</b>	2½ "	Square Selvedge, Screwed, Solid Box, 3 Secure Levers, Fine Flat Bow Keys, all Different, 1 Inch from Selvedge to Key Pin	11 00
<b>0155</b>	3 "	Square Selvedge, Screwed, Solid Box, 2 Secure Levers, Fine Flat Bow Keys, all Different, 1½ Inch from Selvedge to Key Pin	12 75
<b>0156</b>	3 "	Square Selvedge, Screwed, Solid Box, 3 Secure Levers, Fine Flat Bow Keys, all Different, 1½ Inch from Selvedge to Key Pin	14 50
<b>0158</b>	3½ "	Square Selvedge, Screwed, Solid Box, 2 Secure Levers, Fine Flat Bow Keys, all Different, 1¼ Inch from Selvedge to Key Pin	13 50
<b>0159</b>	3½ "	Square Selvedge, Screwed, Solid Box, 3 Secure Levers, Fine Flat Bow Keys, all Different, 1¼ Inch from Selvedge to Key Pin	15 00
<b>0162</b>	4 "	Same as No. 0159	15 50

# Brass and Iron Cupboard Locks.

81



No. 205.



No. 280.



Numbers.	Size.	Iron.	Per dozen.
<b>205</b>	3 Inch.	Broad Bolt, 1 Ward, $\frac{3}{4}$ Inch from Selvege to Key Pin	\$1 25
<b>280</b>	3 "	Square Selvege, Solid Box, Screwed, Broad Heavy Bolt, 2 Secure Levers, Fine Flat Bow Keys, all Different, $\frac{7}{8}$ Inch from Selvege to Key Pin	3 50

## Brass.

<b>0280</b>	3 Inch.	Same as No. 280	\$4 00
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# Mortise Cupboard Locks.



No. 310.



No. 312.

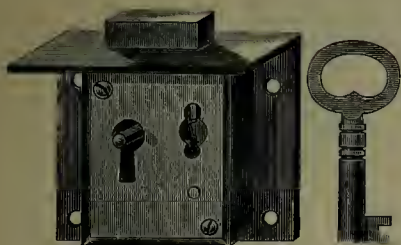


Numbers.	Size.	Iron.	Per dozen.
<b>310</b>	2 $\frac{3}{4}$ Inch.	Brass Selvege, Broad Heavy Bolt, Tumbler, $\frac{5}{8}$ Inch from Selvege to Key Pin	\$2 25
<b>311</b>	2 $\frac{3}{4}$ "	" " " " " " " $\frac{7}{8}$ " " " " " "	2 25
<b>312</b>	2 $\frac{3}{4}$ "	" " " " " " " 1 " " " " " "	2 25

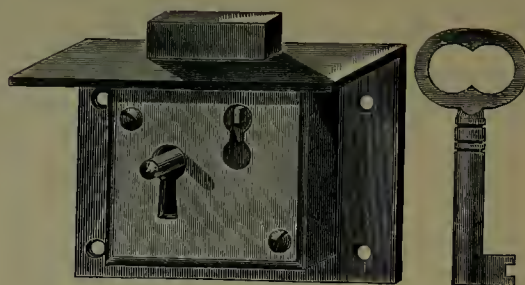




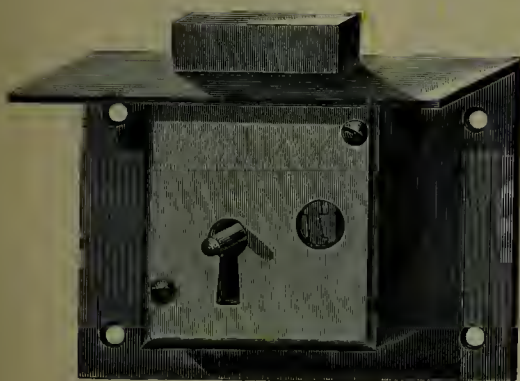
# Brass and Iron Drawer Locks.



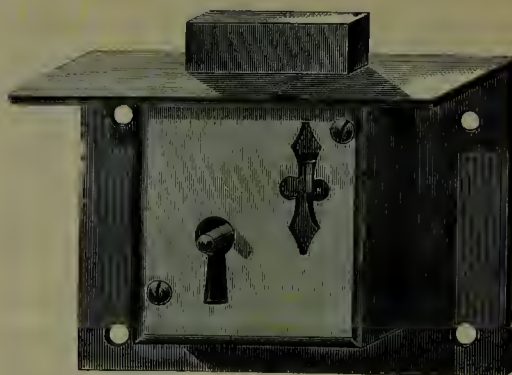
No. 450.



No. 452.



No. 463. Style of No. 456.



No. 0484.



Numbers.	Size.	Iron.	Per dozen.
<b>450</b>	1½ Inch.	Square Selvedge, Solid Box, Screwed, 2 Secure Levers, Fine Flat Bow Keys, all Different, ½ Inch from Selvedge to Key Pin	\$3 00
<b>452</b>	2 "	Square Selvedge, Solid Box, Screwed, Heavy Bolt, 2 Secure Levers, Fine Flat Bow Keys, all Different, ⅝ Inch from Selvedge to Key Pin	3 00
<b>456</b>	2½ "	Square Selvedge, Solid Box, Screwed, Broad Heavy Bolt, 2 Secure Levers, Fine Flat Bow Keys, all Different, ⅝ Inch from Selvedge to Key Pin	3 25
<b>463</b>	2¾ "	Square Selvedge, Solid Square Box, Screwed, Broad Heavy Bolt, 2 Secure Levers, Fine Flat Bow Keys, all Different, ⅝ Inch from Selvedge to Key Pin	3 50

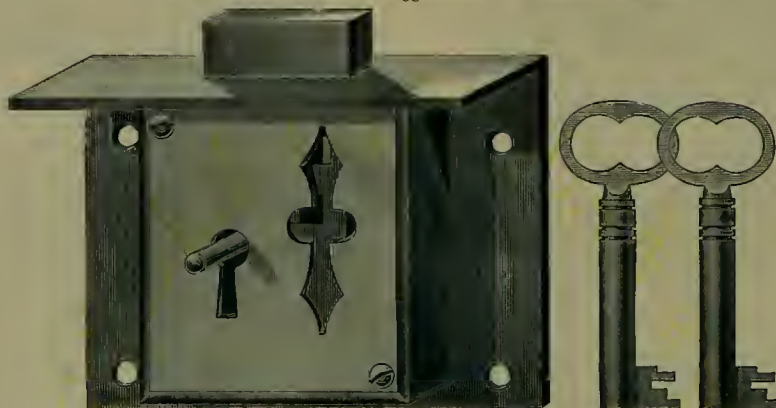
## Brass.

<b>0450</b>	1½ Inch.	Same as No. 450	\$ 4 00
<b>0452</b>	2 "	" " " 452	4 00
<b>0456</b>	2½ "	" " " 456	4 00
<b>0484</b>	2¾ "	Square Selvedge, Solid Square Brass Box, Screwed, Broad Heavy Bolt, 3 Secure Levers, Fine Flat Bow Keys, all Different, ⅝ Inch from Selvedge to Key Pin	11 50

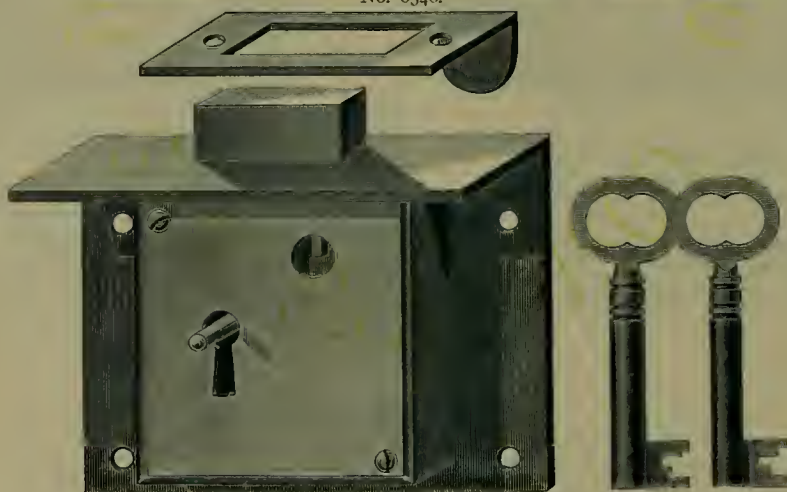
## Brass and Iron Drawer Locks.



No. 0536.



No. 0548.

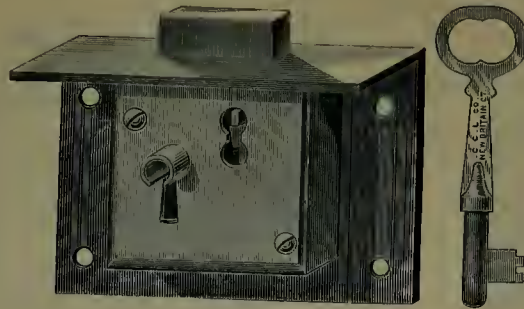


No. 500.

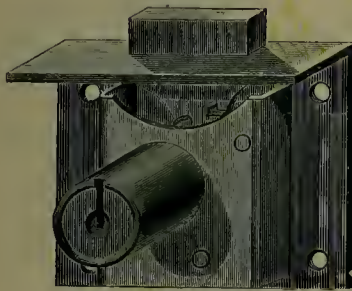
Numbers.		Size.	Iron.	Per dozen.
500	2 3/4	Inch.	Self-Locking, Square Selvedge, Solid Square Box, Screwed, Broad Heavy Bolt, 2 Secure Levers, Fine Flat Bow Keys, all Different, 2 Keys to each Lock, 1 Inch from Selvedge to Key Pin	\$7 00
Brass.				
0500	2 3/4	Inch.	Same as No. 500, 24 Keyed	\$ 8 00
0536	2	"	Square Selvedge, Solid Square Brass Box, Screwed, Broad Heavy Bolt, 2 Secure Levers, Fine Flat Bow Keys, 2 Keys to each Lock, all Different, 3/8 Inch from Selvedge to Key Pin	8 75
0548	2 3/4	"	Square Selvedge, Solid Square Brass Box, Screwed, Broad Heavy Bolt, 4 Secure Levers, Fine Flat Bow Keys, 2 Keys to each Lock, all Different, 3/8 Inch from Selvedge to Key Pin	15 50

# Brass and Iron Drawer Locks.

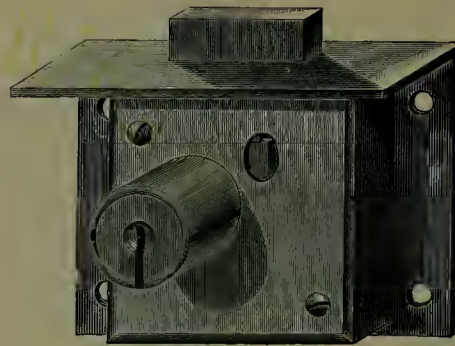
85



No. 572.



No. 590.



No. 600.



Numbers.	Size.	Iron.	
			Per dozen.
<b>572</b>	2¼ Inch.	Square Selvedge, Solid Square Box, Screwed, Broad Heavy Bolt, 2 Secure Levers, Solid Nickel Bit Keys, all Different, ⅝ Inch from Selvedge to Centre of Tube . . .	\$4 25
<b>573</b>	2½ "	Square Selvedge, Solid Square Box, Screwed, Broad Heavy Bolt, 2 Secure Levers, Solid Nickel Bit Keys, all Different, ⅝ Inch from Selvedge to Centre of Tube . . .	4 25
<b>577</b>	2¾ "	Square Selvedge, Solid Square Box, Screwed, Broad Heavy Bolt, 2 Secure Levers, Solid Nickel Bit Keys, all Different, ⅝ Inch from Selvedge to Centre of Tube . . .	4 75
<b>590</b>	1¾ "	Broad Heavy Bolt, 2 Secure Levers, 2 Nickel-Plated Flat Steel Keys to each Lock, all Different, made for ⅞ Inch Wood, ¾ Inch from Selvedge to Centre of Cylinder . . .	4 50
<b>600</b>	2¼ "	Square Selvedge, Solid Square Box, Screwed, Broad Heavy Bolt, 3 Secure Levers, 2 Nickel-Plated Flat Steel Keys to each Lock, all Different, made for ⅞ Inch Wood, ⅞ Inch from Selvedge to Centre of Cylinder . . .	6 50

## Brass.

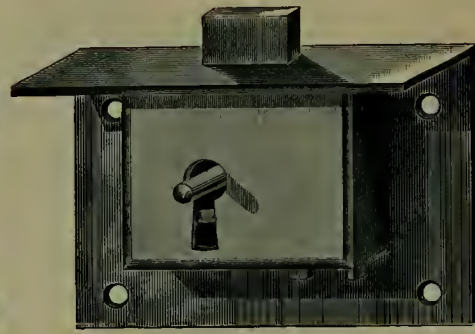
<b>0572</b>	2¼ Inch.	Same as No. 572 . . . . .	\$5 25
<b>0573</b>	2½ "	" " " 573 . . . . .	5 25
<b>0590</b>	1¾ "	" " " 590, All Brass . . . . .	5 00
<b>0600</b>	2¼ "	" " " 600 . . . . .	7 00



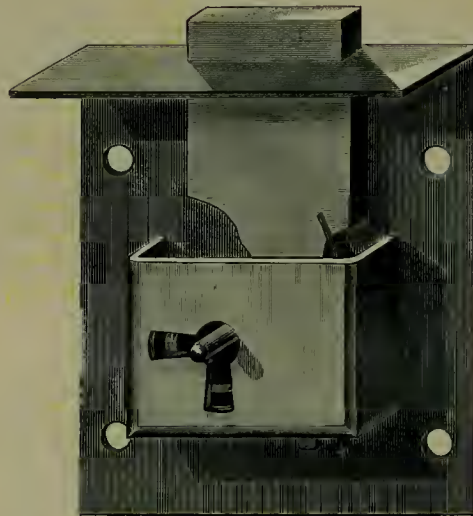
## Brass and Iron Till Locks.



No. 622. Style of Nos. 620 and 626.



No. 629. Style of No. 631.



No. 637. Style of Nos. 634 to 636.



Numbers.	Size.	Iron.	Per dozen.			
			3 Keyed.	4 Keyed.	6 Keyed.	12 Keyed.
<b>620</b>	1½ Inch.	½ Inch from Selvege to Key Pin . . . . .	....	....	....	\$0 68
<b>622</b>	2    "	1 Ward, ⅝ Inch from Selvege to Key Pin . . . . .	....	....	....	0 88
<b>626</b>	2½   "	Double Key Hole, ⅝ Inch from Selvege to Key Pin . . . . .	\$0 40	\$0 43	\$0 50	0 66
<b>629</b>	2½   "	Polished Cap, 1 Ward . . . . .	0 70	0 73	0 80	0 95
<b>631</b>	2¾   "	Unpolished Cap, ⅝ Inch from Selvege to Key Pin . . . . .	0 70	0 74	0 82	1 00
<b>634</b>	2½   "	Broad Bolt, 1 Ward, Double Key Hole, 1 Inch from Selvege to Key Pin . . . . .	1 00	1 03	1 10	1 30
<b>635</b>	2½   "	Brass Selvege, Broad Bolt, 1 Ward, Double Key Hole, 1 Inch from Selvege to Key Piu . . . . .	1 20	1 24	1 30	1 50
<b>636</b>	2½   "	Broad Bolt, 1 Ward, Double Key Hole, 1¼ Inch from Selvege to Key Pin . . . . .	1 10	1 14	1 20	1 40
<b>637</b>	2½   "	Broad Heavy Bolt, 1 Ward, Double Key Hole, 1⅝ Inch from Selvege to Key Pin . . . . .	1 20	1 24	1 30	1 55

## Brass.

<b>0636</b>	2½ Inch.	Same as No. 636 . . . . .	\$1 80	\$1 84	\$1 90	\$2 10
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# Brass and Iron Wardrobe Locks.

87



No. 700. Style of Nos. 702 to 706.



No. 718. Style of Nos. 720 to 723.



No. 740. Style of No. 741.



No. 742. Style of No. 743.



No. 0750. Style of No. 0752.

Numbers.	Size.	Iron.	Per dozen.
<b>700</b>	1 3/8 x 3/4 In.	Solid Square Box, Bolt shoots right and left, Tumbler, Fine Flat Bow Keys	\$1 50
<b>702</b>	2 1/2 x 1 1/4 "	" " " " " " " " " " " "	1 50
<b>704</b>	3 x 1 1/4 "	" " " " " " " " " " " "	1 00
<b>706</b>	3 x 1 3/8 "	" " " " " " " " " " " "	1 75
<b>718</b>	2 x 3/8 "	Solid Square Box, <i>Brass</i> Bolt, shoots right and left, 2 Secure Levers, Fine Flat Bow Keys, all Different	4 00
<b>720</b>	2 3/4 x 1 1/4 "	Solid Square Box, Heavy <i>Brass</i> Bolt, shoots right and left, 2 Secure Levers, Fine Flat Bow Keys, all Different	3 50
<b>722</b>	3 x 1 1/4 "	Solid Square Box, Screwed, Heavy <i>Brass</i> Bolt, shoots right and left, 2 Secure Levers, Fine Flat Bow Keys, all Different	4 00
<b>723</b>	3 x 1 1/4 "	Solid Square Box, Heavy <i>Iron</i> Bolt, shoots right and left, 2 Secure Levers, Fine Flat Bow Keys, all Different	3 25
<b>740</b>	2 x 3/8 "	Same as No. 720, Solid Nickel Bit Keys, all Different	4 25
<b>741</b>	2 1/2 x 1 1/4 "	" " " 720, " " " " " " " "	4 75
<b>742</b>	3 x 1 1/4 "	" " " 722, " " " " " " " "	5 25
<b>743</b>	3 1/2 x 2 "	" " " 722, " " " " " " " "	6 00

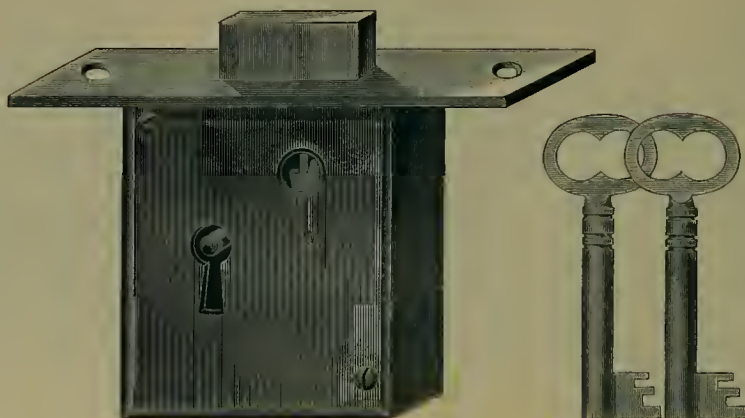
## Brass.

<b>0700</b>	1 3/8 x 1/4 In.	Same as No. 700	\$2 00
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## All Brass.

<b>0740</b>	2 x 3/8 In.	Same as No. 740	\$ 5 50
<b>0741</b>	2 1/2 x 1 1/4 "	" " " 741	6 00
<b>0742</b>	3 x 1 1/4 "	" " " 742	6 75
<b>0743</b>	3 1/2 x 2 "	" " " 743	7 75
<b>0750</b>	2 3/4 x 1 1/4 "	Solid Box, Screwed, Broad Heavy Bolt, shoots right and left, 2 Secure Levers, 2 Nickel-Plated Flat Steel Keys to each Lock, all Different, Cylinders, 3 Lengths in each dozen, for 3/8, 1 and 1 1/8 Wood	8 00
<b>0752</b>	3 1/2 x 2 "	Same as No. 0750	10 00

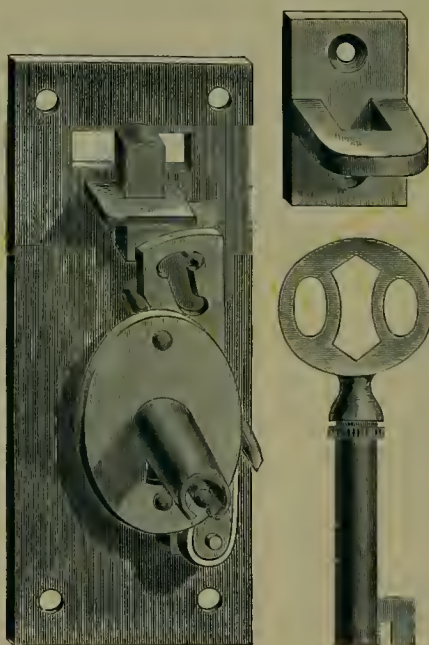
## Mortise Drawer Locks.



No. 0566.

Number.	Size.	Brass.	Per dozen.
<b>0566</b>	3 Inch.	Solid Square Brass Box, Screwed, Broad Heavy Bolt, 3 Secure Levers, Fine Flat Bow Keys, 2 Keys to each Lock, all Different, 1 Inch from Selvege to Key Pin	<b>\$13 50</b>

## Chiffonier Locks.



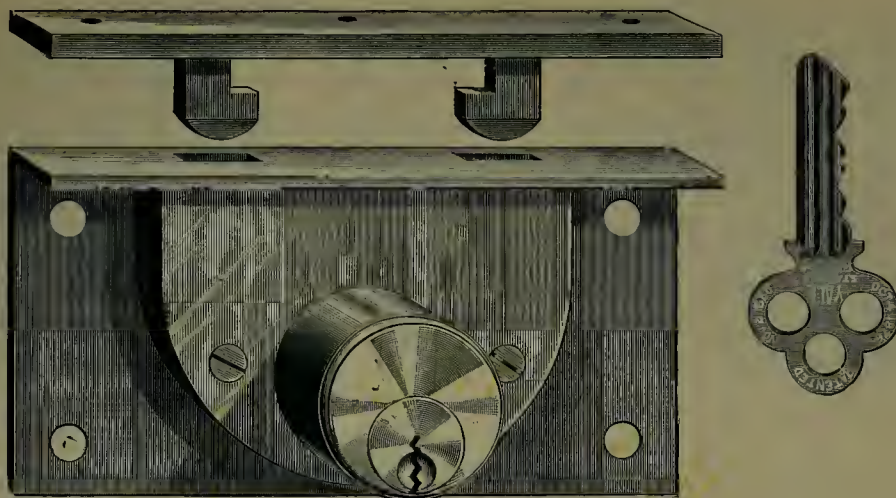
No. 0806.

Number.	Size.	Brass.	Per dozen.
<b>0806</b>	3½ x 1½ In.	High Pin and Tube, 2 Secure Levers, Gold-Plated Keys, made Regular for ⅞ Inch Wood,	<b>\$8 00</b>



# "Yale" Locks.

## CHEST.



No. 520.

Numbers.	Size.	All Brass.	Per dozen.
<b>520</b>	2 x 4 Inch.	Finished Brass Case, 1 1/4 Inch Nickel-Plated Tube, with 2 New Corrugated Keys	\$28 20
<b>522</b>	2 x 4 "	" " " 1 1/2 " " " " " 2 " " "	28 20

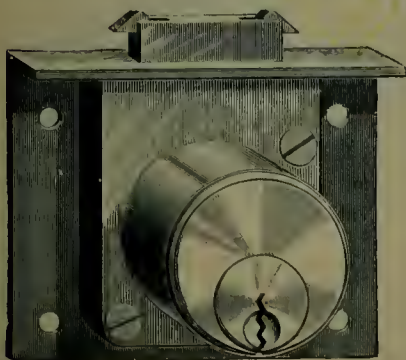


Key for No. 540.

## DESK.



Key for Nos. 905 and 945.



No. 540.



No. 905.

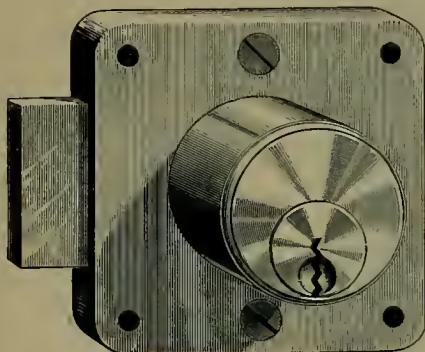


No. 945.

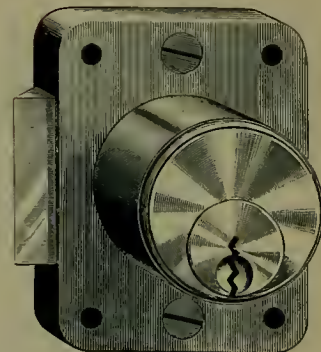
Numbers.	Size.	All Brass.	Per dozen.
<b>540</b>	1 7/8 x 2 1/4 In.	Finished Brass Case, 3/4 Inch Nickel-Plated Tube, with 2 New Corrugated Keys	\$14 40
<b>542</b>	1 7/8 x 2 1/4 "	" " " 1 " " " " " 2 " " "	14 40
<b>905</b>	2 In. Diam.	Round Finished Brass Case, 1 Inch Brass Tube, 2 Tumblers, 12 Changes, with 2 Nickel-Plated Steel Keys, and Link Plate	8 50
<b>945</b>	1 5/8 x 2 In.	Round Finished Brass Case, 1 Inch Brass Tube, 2 Tumblers, 12 Changes, with 2 Nickel-Plated Steel Keys, and Brass Striking Plate	8 00

# "Yale" Locks.

## CUPBOARD.



No. 500. Style of 510, 512 and 516.  
For Either "Hand."

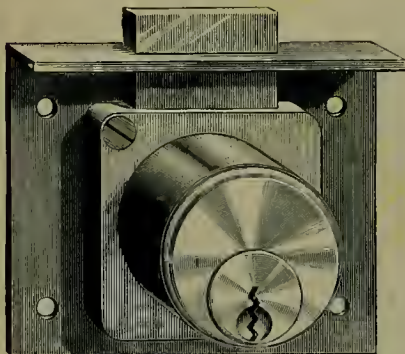


No. 516, S.  
Specify "Hand" Wanted.

Numbers.	Size.	All Brass.						Per dozen.
<b>500</b>	2 x 2 Inch.	Finished Brass Case, 1	Inch Nickel-Plated Tube, with 2 New Corrugated Keys					\$19 20
<b>510</b>	2 x 1½ "	" " " ¾	" " " " " 2 " " " "					16 20
<b>512</b>	2 x 1½ "	" " " 1	" " " " " 2 " " " "					16 20
<b>516</b>	2 x 1½ "	" " " 1¼	" " " " " 2 " " " "					16 20
<b>516, S</b>	2 x 1½ "	" " " 1¼	" " " " " 2 " " " and Strike					19 20

When Ordering No. 516, S Locks, Specify "Hand" Desired.

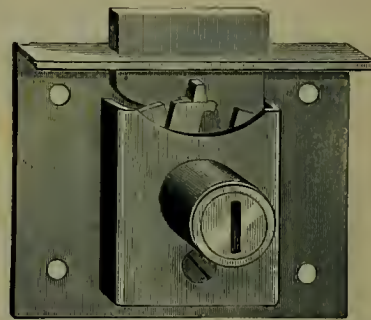
## DRAWER.



No. 560. Style of Nos. 562 to 582.



No. 920. Style of Nos. 921 to 925.



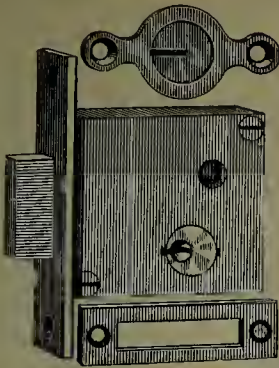
No. 961. Style of No. 965.

Numbers.	Size.	All Brass.						Per dozen.
<b>560</b>	1½ x 2¼ In.	Finished Brass Case, ¾	Inch Nickel-Plated Tube, with 2 New Corrugated Keys					\$13 20
<b>562</b>	1½ x 2¼ "	" " " 1	" " " " " 2 " " " "					13 20
<b>570</b>	2½ x 2¼ "	" " " ¾	" " " " " 2 " " " "					16 20
<b>572</b>	2½ x 2¼ "	" " " 1	" " " " " 2 " " " "					16 20
<b>580</b>	2½ x 2¼ "	" " " ¾	" " " " " 2 " " " "					18 00
<b>582</b>	2½ x 2¼ "	" " " 1	" " " " " 2 " " " "					18 00
<b>920</b>	2 In. Diam.	Round Finished Brass Case, ½	Inch Nickel-Plated Tube, 2 Tumblers, 12 Changes, with 2 Nickel-Plated Steel Keys					8 50
<b>921</b>	2 " "	Same as No. 920, ½	Inch Brass Tube					7 00
<b>925</b>	2 " "	" " " 920, 1	" " " " "					7 00
<b>961</b>	1½ x 2 In.	Finished Brass Case, ½	Inch Brass Tube, 2 Tumblers, 12 Changes, with 2 Nickel-Plated Steel Keys					6 50
<b>965</b>	1½ x 2 "	Finished Brass Case, 1	Inch Brass Tube, 2 Tumblers, 12 Changes, with 2 Nickel-Plated Steel Keys					6 50

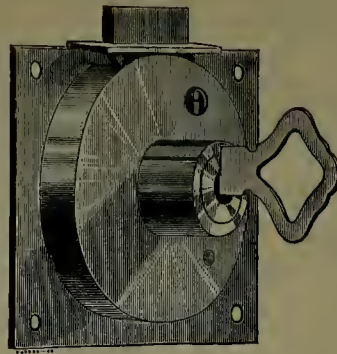


# Sargent & Greenleaf Drawer Locks.

91



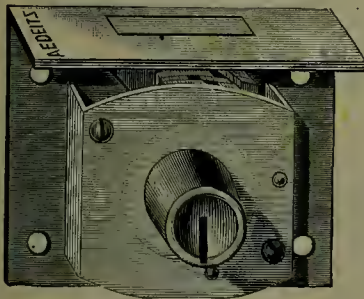
No. 17 1/2.



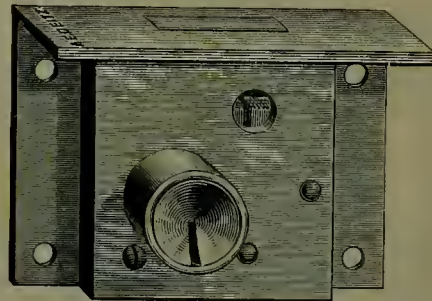
No. 47. Style of No. 49.

Numbers.	Size.	Mortise.	Per dozen.
17 1/2	1 1/2 x 1 3/8 x 7/10 Inch.	Solid Bronze, Plated Escutcheon, 4 Tumblers, 2 Flat German Silver Keys	\$10 00
Rim.			
47	2 1/8 x 1 3/4 Inch.	Bronze Case, Brass Back, 2 Tumblers, 12 Changes, 2 Flat German Silver Keys, for 3/8 Inch Wood	\$5 10
49	2 1/8 x 1 3/4 "	Bronze Case, Brass Back, 2 Tumblers, 12 Changes, Plated Tube, 2 Flat German Silver Keys, for 3/8 Inch Wood	5 50

## "Dietz" Drawer or Cupboard Locks.



No. 51.



No. 87.

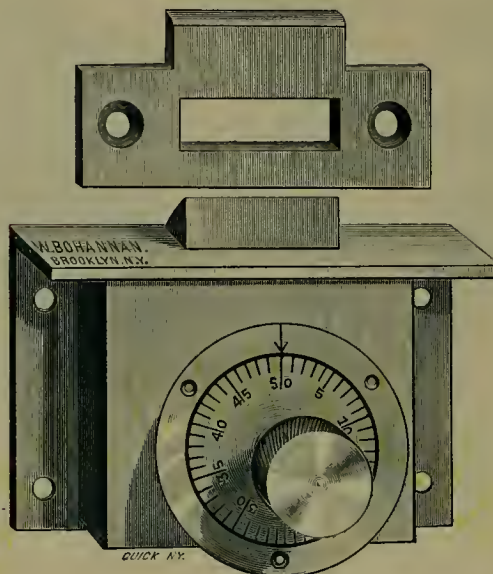


Numbers.	Size.	Wrought Brass.	Per dozen.
51	2 x 1 5/8 In.	For 3/8 Inch Wood, 3 Tumblers, 2 Flat Steel Keys	\$7 20
Cast Brass.			
87	2 1/4 x 1 5/8 In.	For 3/8 Inch Wood, 3 Tumblers, 2 Flat Steel Keys	\$9 60



# "Bohannon" Combination Locks.

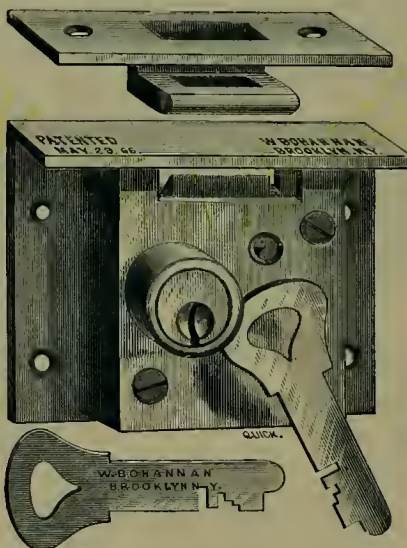
## DRAWER AND CUPBOARD.



No. 181.

Number.	Size.	Cast Bronze Metal.	Per dozen.
<b>181</b>	2 $\frac{7}{8}$ Inch.	Beautifully Finished, Capable of Making 500 or more Changes, Combination Changed without Taking the Lock off the Drawer or Cupboard	<b>\$17 00</b>

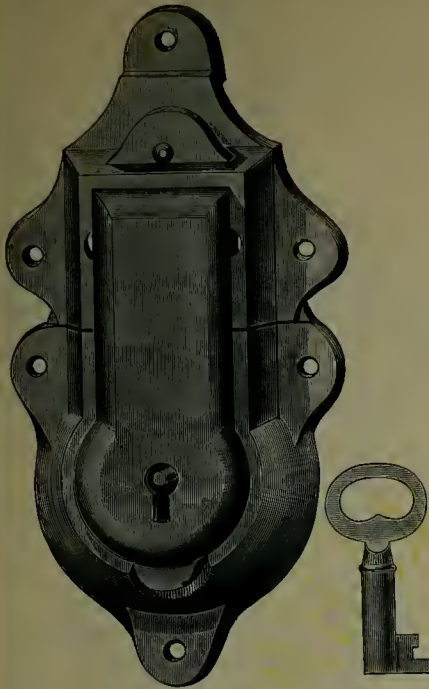
## SELF-LOCKING CASH DRAWER AND CUPBOARD.



No. 192.

Number.	Size.	Cast Bronze Metal.	Per dozen.
<b>192</b>	2 $\frac{3}{4}$ Inch.	3 Brass Tumblers, 2 Nickel-Plated Steel Keys, Patent Catch Entering Back of Lock	<b>\$14 00</b>

## Surface Trunk Locks.



No. 1100.

Number.	Size.	Iron.	Per dozen.
<b>1100</b>	4 x 2 In.	All Japanned . . . . .	<b>\$1 25</b>

Above Lock is made with Spring to throw open Hasp when unlocked.

## Surface Trunk Locks.

WITH PLATE.

Numbers.	Size.	Iron.	Per dozen.
<b>1130</b>	3½ Inch.	All Japanned . . . . .	<b>\$1 75</b>
<b>1140</b>	4     "	"     "     "     "     "	<b>2 00</b>

Brass.

<b>1330</b>	3½ Inch.	Brass Plate, Brass-Plated Lock,	<b>\$3 50</b>
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No. 1130.

Above Locks are made with Spring to throw open Hasp when unlocked.

## Surface Trunk Locks.



No. 1110.

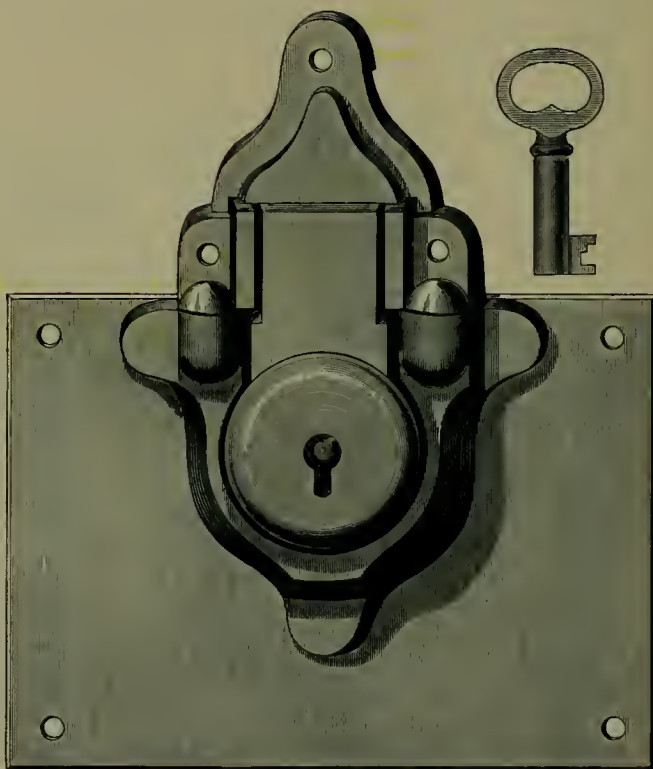
Number.	Size.	Iron.	Per dozen.
<b>1110</b>	4x2½ In.	Japanned . . . . .	\$1 50

Above Lock is made with Spring to throw open  
Hasp when unlocked.

## Surface Trunk Locks.

WITH PLATE.

Number.	Size.	Brass.	Per dozen.
<b>1345</b>	4 Inch.	Brass Plate, Brass-Plated Lock . . . . .	\$4 25



Above Lock is made with Spring to throw  
open Hasp when unlocked.

No. 1345.



## Surface Trunk Locks.

Numbers.	Size.	Iron.	Per dozen.
<b>1105</b>	4¾ x 1½ In.	Japanned . . .	\$2 00
<b>1108</b>	4¾ x 1½ In.	Tinned . . .	2 75



Cut of No. 1105, Locked.

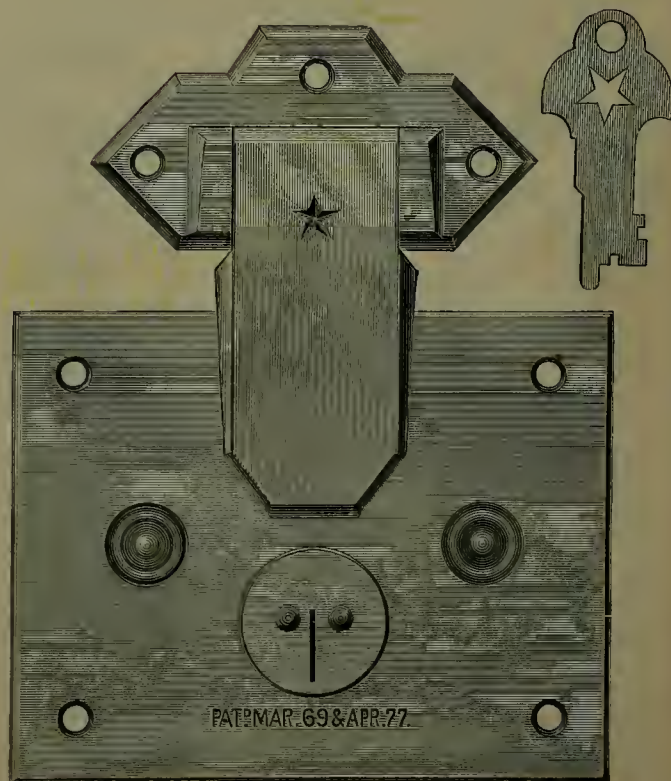
Above Locks are made with Spring to throw open Hasp when unlocked.

## "Star" Trunk Locks.

Numbers.	Size.	Iron.	Per dozen.
<b>401</b>	2¾ x 3½ In.	Japanned . . .	\$3 00
<b>402</b>	3 x 3¾ "	" . . .	3 50
<b>403</b>	3¼ x 4½ "	Tinned . . .	4 50

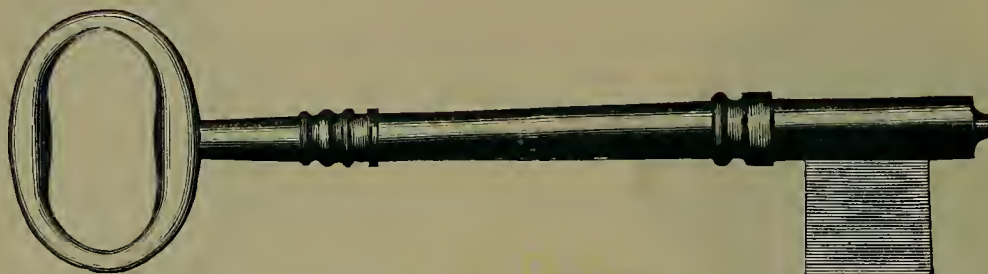
## Brass.

<b>501</b>	2¾ x 3½ In.	. . . . .	\$4 00
<b>502</b>	3 x 3¾ "	. . . . .	5 00
<b>503</b>	3¼ x 4½ "	. . . . .	6 00

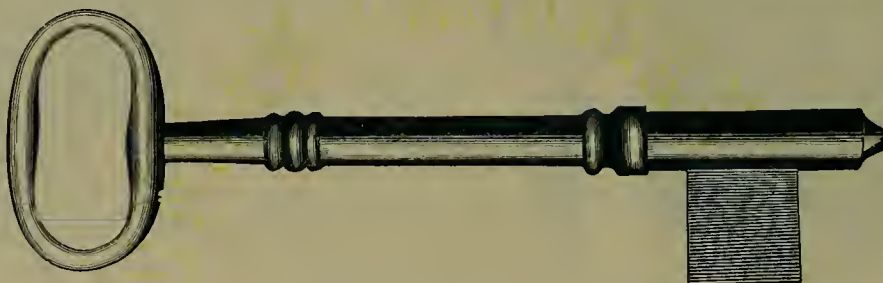


# Bronze Metal Key Blanks.

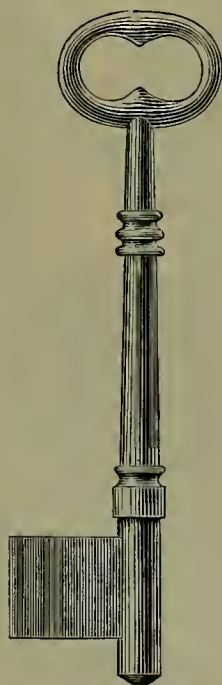
ALL FULL SIZE ILLUSTRATIONS.



No. 6. Per Dozen, \$5 50



No. 20. Per Dozen, \$4 00



Nos. 105

Per Dozen, \$3 00



109

2 75



120

2 00

# Bronze Metal Key Blanks.

97

ALL FULL SIZE ILLUSTRATIONS.



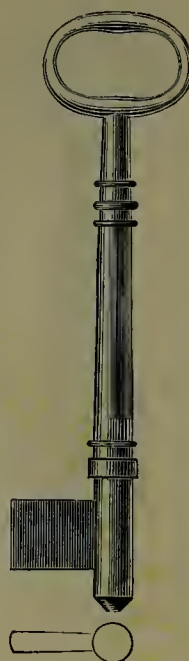
Nos. 135  
Per Dozen, \$2 00



150  
1 75



158  
1 75



186  
1 75



191  
1 75



Nos. 208  
Per Dozen, \$1 50



211  
1 50



216  
1 40



217  
1 40



231  
2 00



# Bronze Metal Key Blanks.

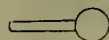
ALL FULL SIZE ILLUSTRATIONS.



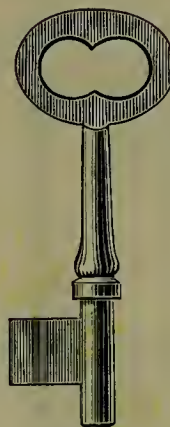
Nos. 340  
Per Dozen, \$1 75



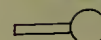
345  
1 50



346  
1 50



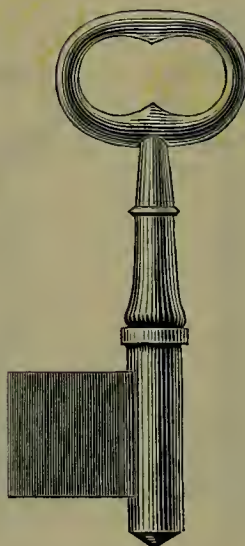
347  
1 50



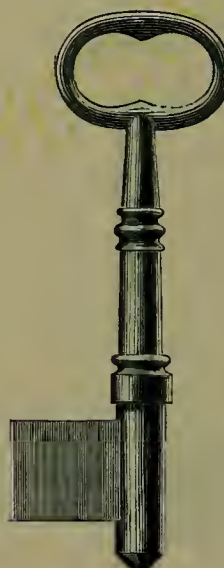
350  
1 50



Nos. 377  
Per Dozen, \$2 00



382  
2 00



383  
1 75



407  
1 40

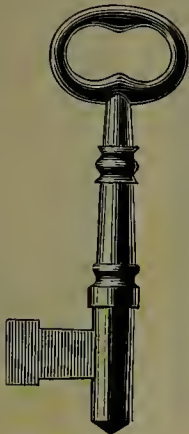
# Bronze Metal Key Blanks.

99

ALL FULL SIZE ILLUSTRATIONS.



Nos. 412  
Per Dozen, \$1 40



456  
1 10



463  
1 10



530  
1 50



535  
1 50



Nos. 645  
Per Dozen, \$1 40



651  
1 50



683  
1 40



685  
1 75



689  
1 50

# Bronze Metal Key Blanks.

ALL FULL SIZE ILLUSTRATIONS.



Nos. 693

Per Dozen, \$1 40



709

1 40



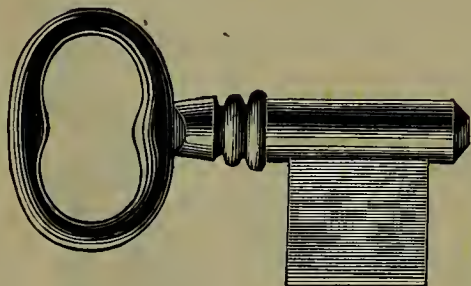
718

1 10



728

1 10



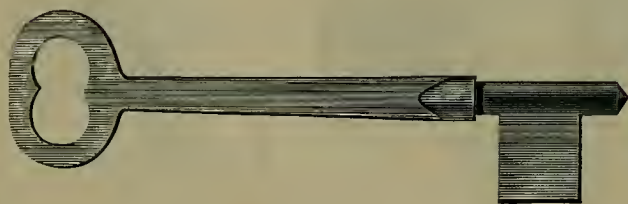
No. 755. Per Dozen, \$2 00



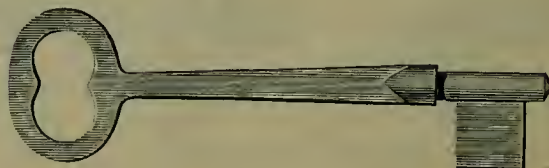
No. 804. Folding. Per Dozen, \$6 00

## Tinned Malleable Iron Key Blanks.

ALL FULL SIZE ILLUSTRATIONS.



No. 1600. Per Dozen, \$0 40



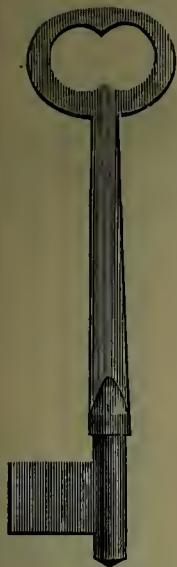
No. 1604. Per Dozen, \$0 40



# Tinned Malleable Iron Key Blanks.

101

ALL FULL SIZE ILLUSTRATIONS.



Nos. **1606**  
Per Dozen, \$0 40



**1630**  
0 40



**1632**  
0 40



**1634**  
0 40



**1642**  
0 40



Nos. **1831**  
Per Dozen, \$0 40



**1832**  
0 40



**1833**  
0 40



**1834**  
0 40



**1904**  
0 40



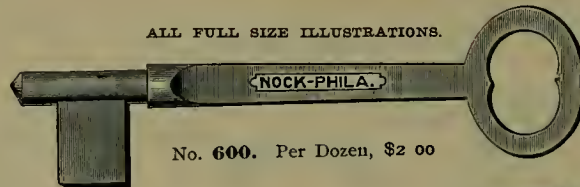
No. **1921.** Per Dozen, \$0 40



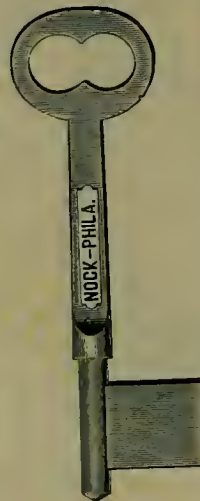
No. **1923.** Per Dozen, \$0 40

# Nickel-Plated Steel Key Blanks.

ALL FULL SIZE ILLUSTRATIONS.



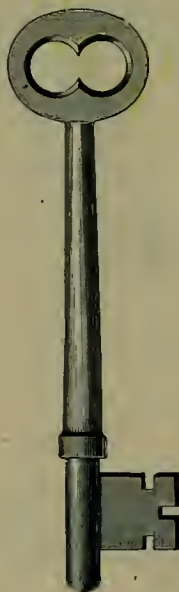
No. 600. Per Dozen, \$2 00

Nos. 601  
Per Dozen, \$2 00604  
1 50605  
1 50609  
1 50611  
1 50635  
1 50

## Malleable Iron Door Keys.

[N. L. Co.]

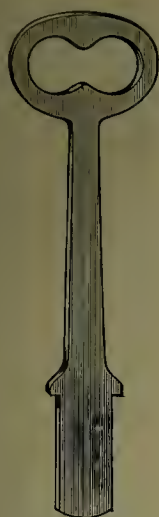
ALL FULL SIZE ILLUSTRATIONS.

Class Nos. 152  
Per Dozen, \$0 40152 1/2  
0 40168  
0 40170  
0 40171  
0 40

# Flat Steel Key Blanks.

103

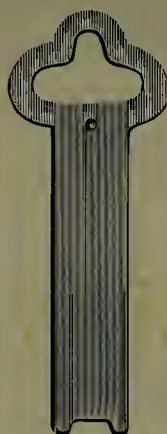
ALL FULL SIZE ILLUSTRATIONS.



Nos. 1100 1/2



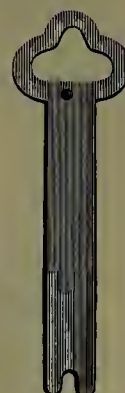
2430



2431



2453 Brass



2487



2488

PRICES QUOTED ON APPLICATION.



Nos. 2497



2500



2500 1/2



2501



2559



2589

## Padlock, Cupboard, Till and Trunk Blanks.

### PADLOCK KEYS AND BLANKS.

Nos.		Per Gross.
31	Bronze Metal Blanks . . . . .	\$15 00
35	Iron Blauks . . . . .	12 00
36	Iron Cut Keys, Assorted, 00000 to 5 . . . . .	3 25
37	Iron Cut Keys, Assorted, 00000 to 6 . . . . .	3 75
38	Iron Cut Keys, Assorted, 00000 to 8 . . . . .	4 15

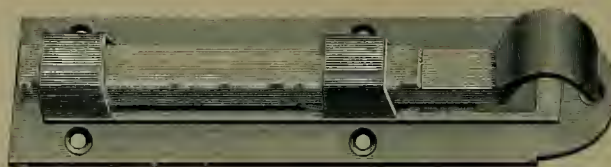
### CUPBOARD, TILL AND TRUNK KEYS AND BLANKS.

Nos.		Per Gross.
44	Wardrobe . . . . .	\$4 75
45	Chest, Large . . . . .	5 00
46	Chest, Small . . . . .	3 75
47	Cupboard . . . . .	3 75
48	Cabinet . . . . .	3 75
49	Till . . . . .	3 25
50	Trunk, Assorted, Large . . . . .	5 00

Assortment Nos. 44 to 50 always sent CUT, unless otherwise ordered.



## No. 300. Square Bolts.

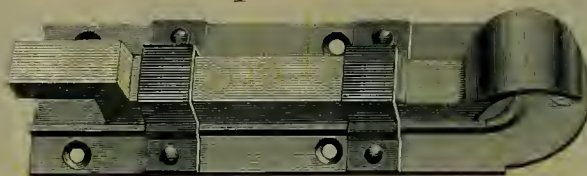


Half Size Cut of 8 Inch.

Steel Spring, Japanned Plate, Polished Bolt.

Inch,	3	4	5	6	7	8	9	10
Per Dozen,	\$0 85	1 05	1 20	1 55	2 10	2 62	3 12	3 65

## No. 320. Square Neck Bolts.



Half Size Cut of 7 Inch.

Steel Spring, Japanned Plate, Polished Bolt.

Inch,	4	5	6
Per Dozen,	\$1 20	1 60	2 40

## No. 362. Barrel Bolts.



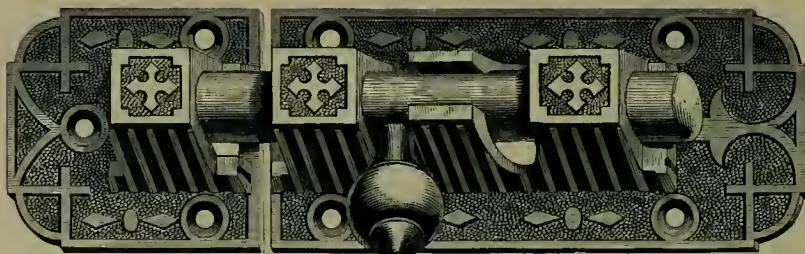
Half Size Cut of 7 Inch.

Japanned, Brass Knob, Polished Bolt.

Inch,	3	4	5	6
Per Dozen,	\$1 00	1 12	1 45	1 80

The 3 Inch has a Wrought Bolt.

## No. 462. Barrel Bolts.



Full Size Cut of 3 Inch. Patented.

Berlin Bronzed.

Wrought Iron Bolt, Bronze Metal Knob, Packed with Screws.

Inch,	3	4	5
Per Dozen,	\$2 90	3 20	3 80

## No. 305. Wrought Iron Square Bolts.

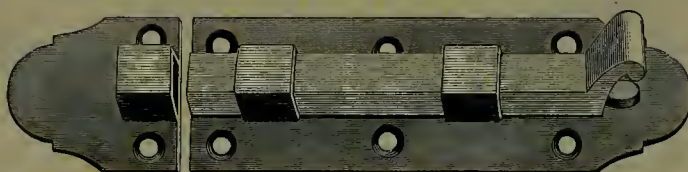


Half Size Cut of 7 Inch.

Steel Spring, Japanned Plate, Polished Bolt.

Inch,	6	7	8	10	12
Per Dozen,	\$2 85	3 75	4 00	6 50	7 00

## No. 315. Wrought Iron Spring Bolts.

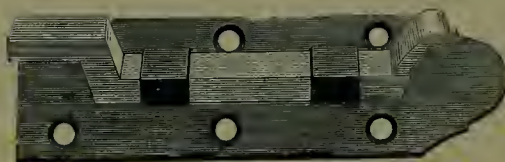


Full Size Cut of 3 Inch.

Wrought Iron, Japanned Plate, Polished Bolt.

Inch,	2	2½	3	3½
Per Dozen,	\$1 10	1 20	1 35	1 60

## No. 325. Wrought Iron Neck Bolts.

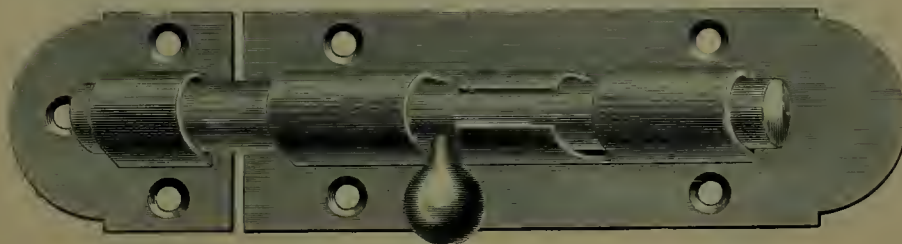


Full Size Cut of 3 Inch.

Wrought Iron, Japanned Plate, Polished Bolt.

Inch,	2½	3	3½	4
Per Dozen,	\$1 20	1 35	1 60	1 80

## No. 367. Wrought Iron Barrel Bolts.

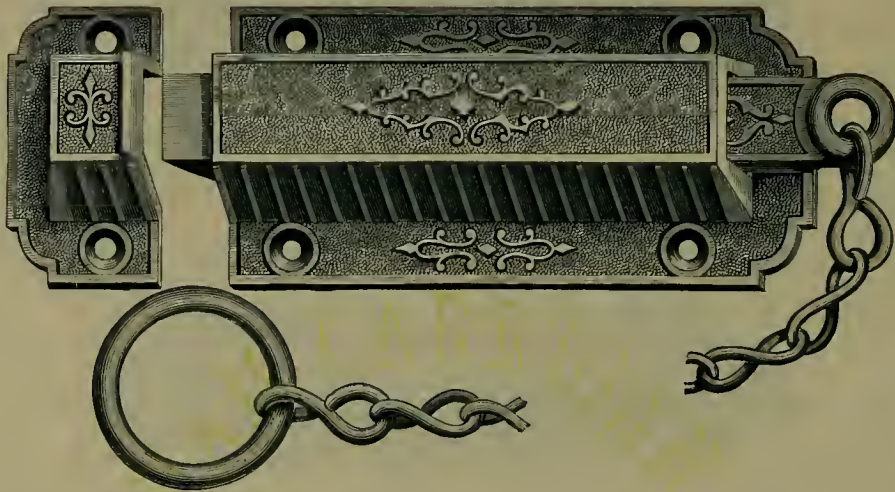


Full Size Cut of 4 Inch.

Brass Knob, Japanned Plate, Polished Bolt.

Inch,	3	4	5	6	8
Per Dozen,	\$2 15	2 45	3 00	3 40	6 50

## No. 481. Chain Bolts.

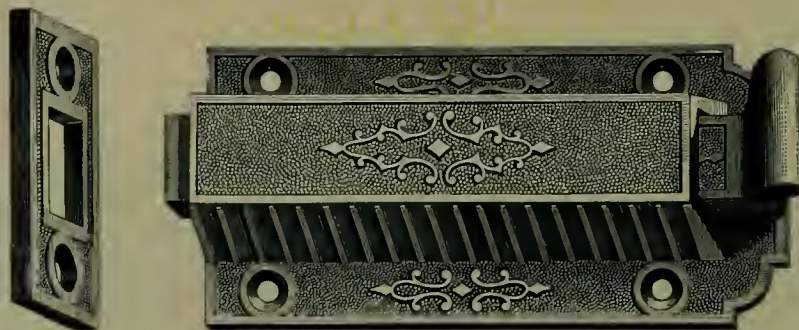


Full Size Cut of 3 Inch. Patented.

Berlin Bronzed. Packed with Screws.

Inch,	3	4	6	8
Per Dozen,	\$4 20	4 60	6 00	7 50

## No. 490. Bottom Bolts.



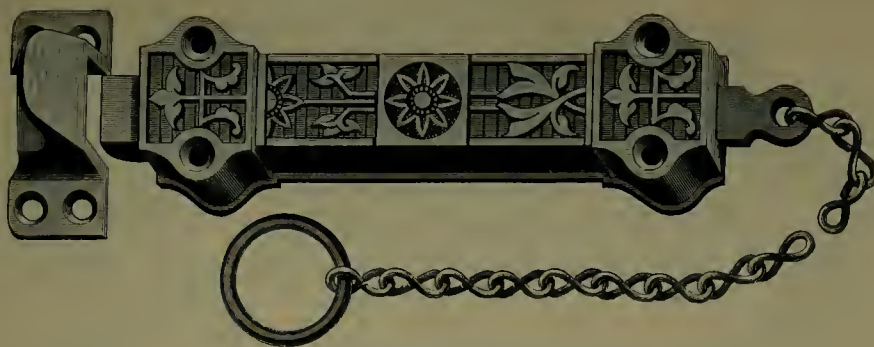
Full Size Cut of 3 Inch. Patented.

Berlin Bronzed. Packed with Screws.

Inch,	3	4	6	8
Per Dozen,	\$3 20	3 60	5 00	6 50



## No. 383. Chain Bolts.

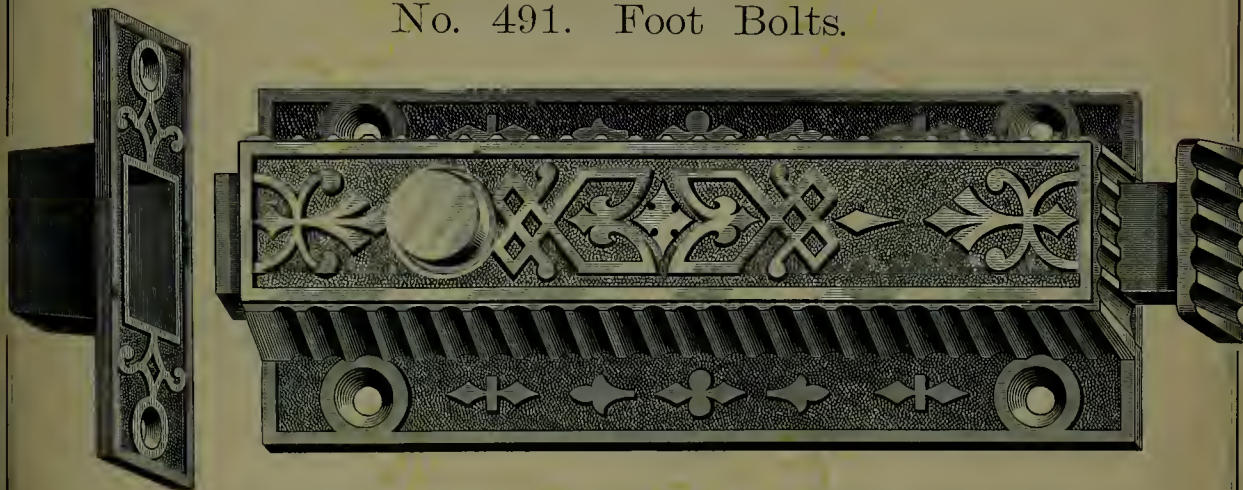


Half Size Cut of 8 Inch.

Extra Heavy, Full Case, Japanned.

Inch,	3	4	6	8	10
Per Dozen,	\$3 10	3 75	4 50	5 60	7 80

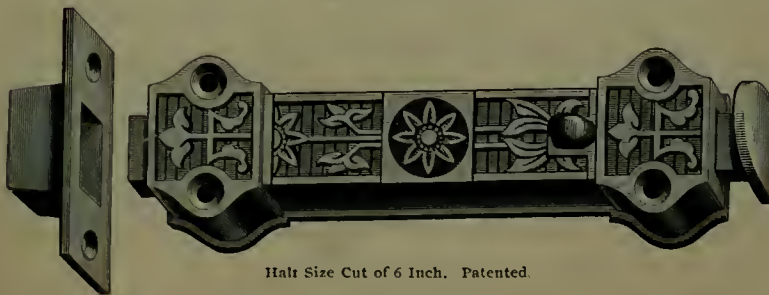
## No. 491. Foot Bolts.



Berlin Bronzed. Packed with Screws.

Inch,	6	8
Per Dozen,	\$5 50	6 30

## No. 391. Spring Foot Bolts.

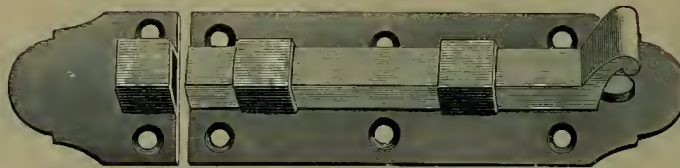


Half Size Cut of 6 Inch. Patented.

Japanned.

Inch,	6	8	10
Per Dozen,	\$4 40	5 40	7 50

## No. 515. Wrought Brass Spring Bolts.

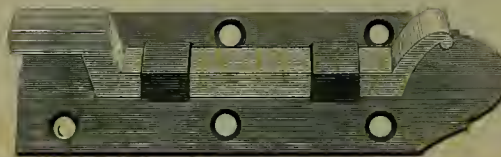


Full Size Cut of 3 Inch.

All Brass, Polished.

Inch,	2	2½	3	3½
Per Dozen,	\$2 25	2 70	3 25	4 00

## No. 525. Wrought Brass Neck Bolts.

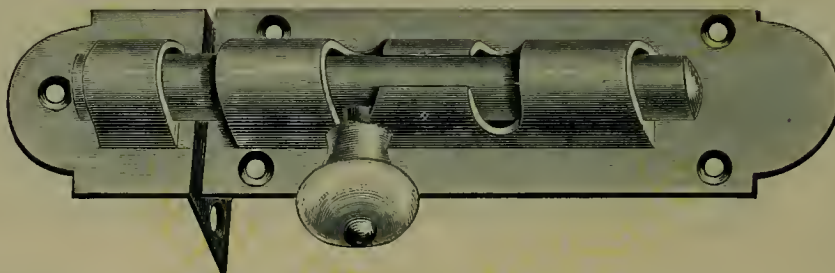


Full Size Cut of 3 Inch.

All Brass, Polished.

Inch,	2½	3	3½	4
Per Dozen,	\$2 70	3 25	4 00	4 30

## No. 563. "Elm City" Brass Barrel Bolts.

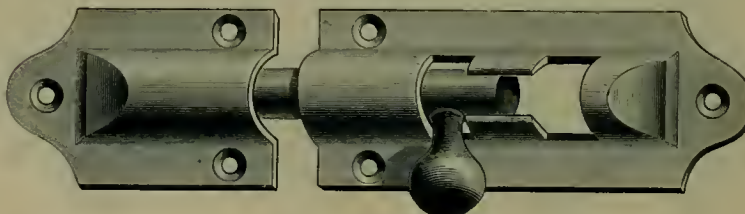


Full Size Cut of 4 Inch.

Heavy. Polished and Lacquered Porcelain Knob. Bent Staple.

Inch,	3	4	5	6
Per Dozen,	\$8 00	10 00	12 00	14 00

## No. 570. Cast Brass Barrel Bolts.

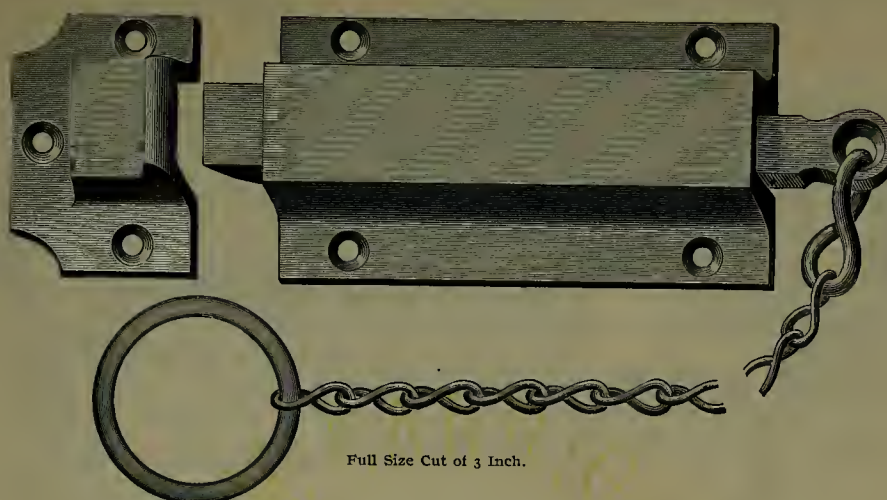


No. 570. Full Size Cut of 2½ Inch.

Wrought Iron Bolt, Polished and Lacquered, Brass Knob.

Inch,	3	4	5
Per Dozen,	\$5 50	7 00	8 00

## No. 581. Cast Brass Chain Bolts.



Full Size Cut of 3 Inch.

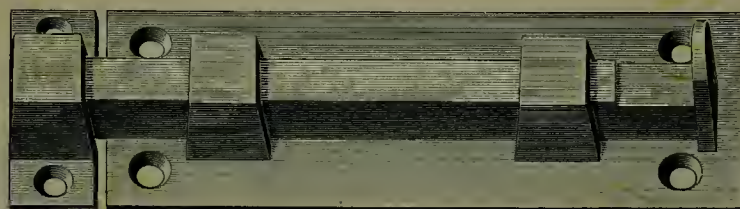
Polished and Lacquered.

Inch, 2  
Per Dozen, \$9 25

3  
11 00

4  
13 50

## No. 500. Cast Brass Square Bolts.



No. 500. Full Size Cut of 4 Inch.

Polished and Lacquered.

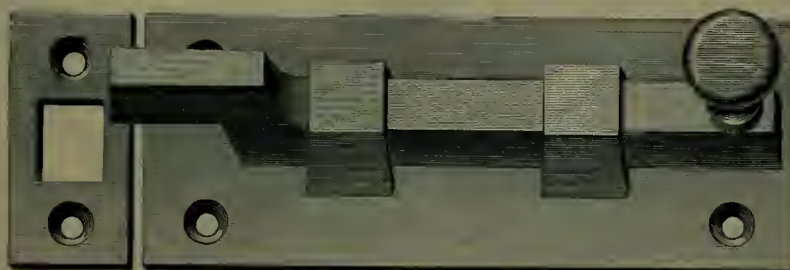
Inch, 3  
Per Dozen, \$6 00

4  
8 00

5  
10 00

6  
11 25

## No. 522. Cast Brass Neck Bolts.



Full Size Cut of 4 Inch.

Polished and Lacquered.

Inch, 3  
Per Dozen, \$7 50

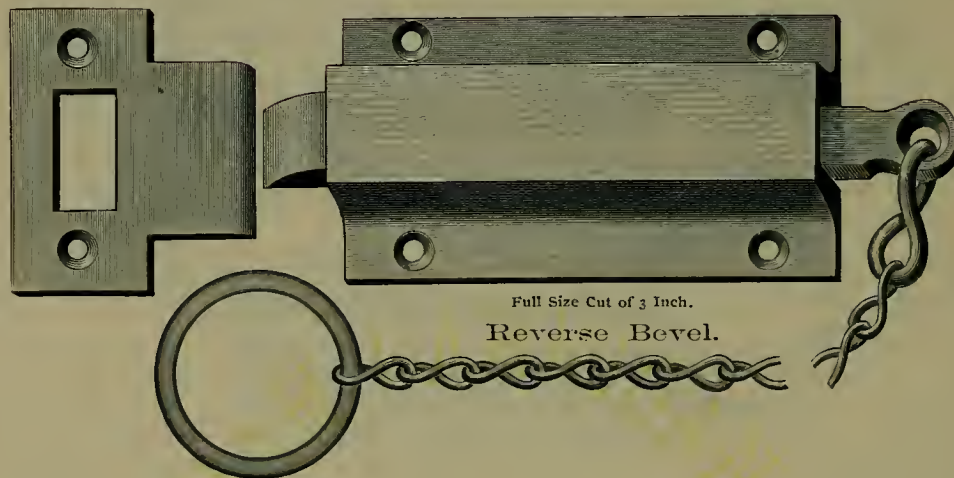
4  
9 50

5  
12 00



## No. 582. Reverse Bevel Chain Bolts.

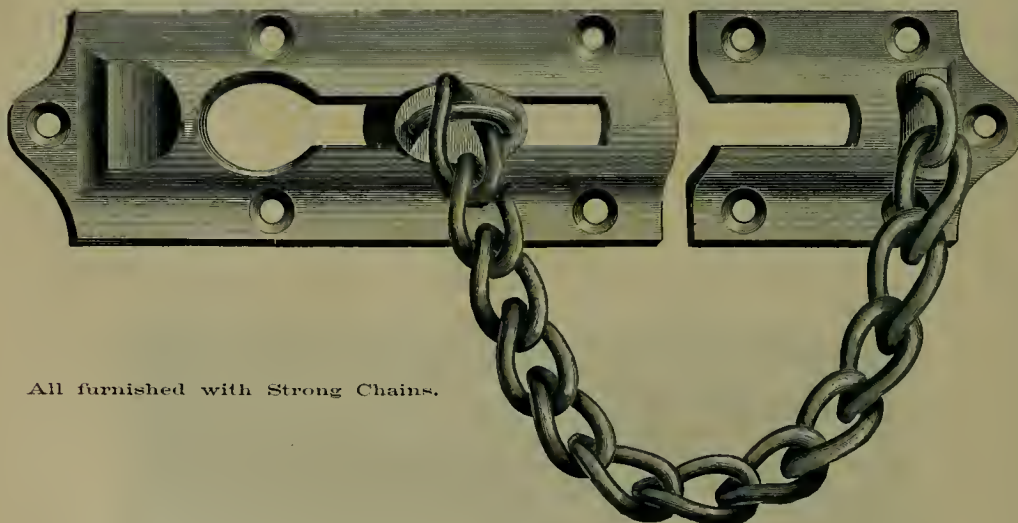
CAST BRASS.



3 Inch, Cast Brass, Polished and Lacquered . . . . . Per Dozen, \$13 50

The above are for the inside of Cupboard and Book Case Doors, where Double Doors are used.

## Chain Door Fastenings.



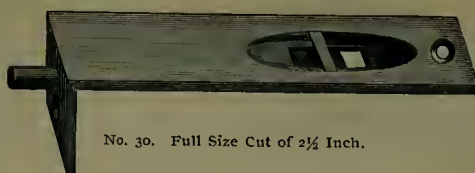
All furnished with Strong Chains.

No. 36.	6 Inch, Japanned	. . . . .	Per Dozen, \$ 4 00
No. 64.	4 " Cast Brass	. . . . .	" " 12 00
No. 66.	6 " " "	. . . . .	" " 15 00

Extra Heavy.

No. 74.	4 Inch, Cast Brass	. . . . .	Per Dozen, \$16 00
No. 76.	6 " " "	. . . . .	" " 20 00

# Cast Brass Flush Bolts.



No. 30. Full Size Cut of 2 1/2 Inch.

POLISHED AND LACQUERED.

No. 30. 3/8 Inch Wide.  
Inch, 2  
Per Dozen, \$0 90

2 1/2  
1 00

No. 40. 1/2 Inch Wide.  
Inch, 3  
Per Dozen, \$1 40

4  
1 80



Heavy. Sunk Thumb Piece, Strike Plates.

POLISHED AND LACQUERED.

No. 50. 5/8 Inch Wide.  
Inch, 4  
Per Dozen, \$2 80

6  
3 80

8  
5 50

No. 60. 3/4 Inch Wide.  
Inch, 4  
Per Dozen, \$3 20

6  
4 20

8  
6 00

10  
8 00



Extra Heavy. Sunk Thumb Piece, Strike Plates.

POLISHED AND LACQUERED.

No. 85. 1 Inch Wide.  
Inch, 6  
Per Dozen, \$7 50

8  
9 00

10  
11 00

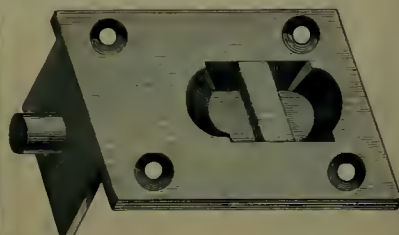
12  
13 50

15  
16 00

18  
20 00

24  
25 00

## Cast Brass Ship Flush Bolts.



No. 20.

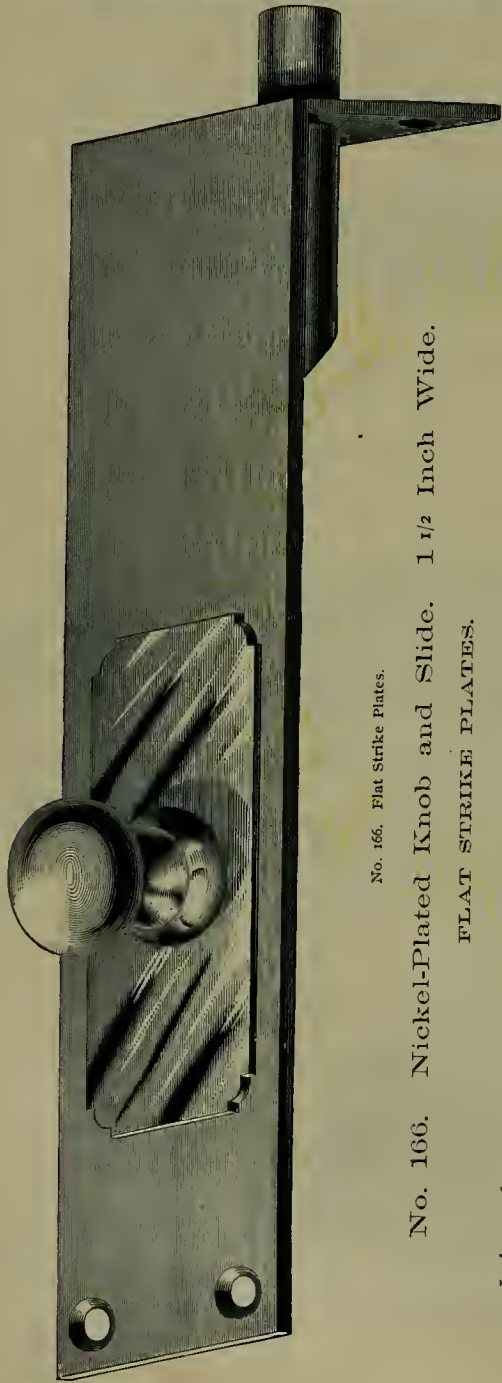
Heavy.

Sunk Thumb Piece, Polished and Lacquered.

1 1/2 Inch . . . . . Per Dozen, \$3 50  
2 " . . . . . " " 4 00

# Wrought Iron Flush Bolts.

112



No. 166. Flat Strike Plates.

No. 166. Nickel-Plated Knob and Slide. 1 1/2 Inch Wide.

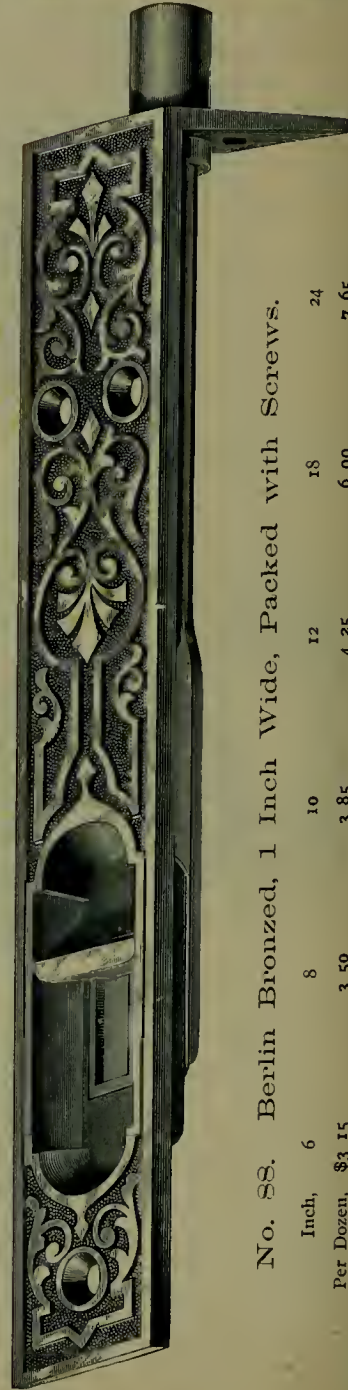
## FLAT STRIKE PLATES.

Inch,	6	9	12	18	24	30	36	48	54	60
Per Dozen, \$	11 50	12 00	12 50	13 50	15 00	16 50	18 50	45 00	50 00	56 00

No. 167. Fancy Bronze Metal Knob and Slide. 1 1/2 Inch Wide.

Inch,	6	9	12	18	24	30	36	48	54	60
Per Dozen, \$	11 50	12 00	12 50	13 50	15 00	16 50	18 50	45 00	50 00	56 00

# Berlin Bronzed Flush Bolts.

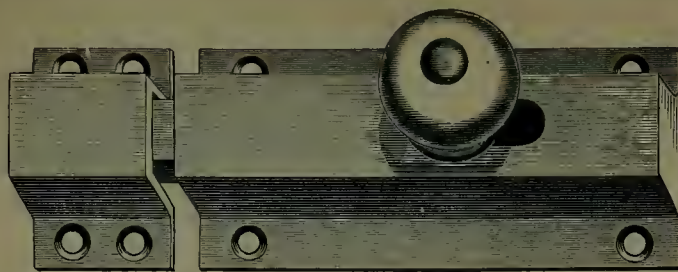


No. 88. Berlin Bronzed, 1 Inch Wide, Packed with Screws.

Inch,	6	8	10	12	18	24
Per Dozen, \$	3 15	3 50	3 85	4 25	6 00	7 65



## No. 504. Cast Brass Square Cased Bolts.



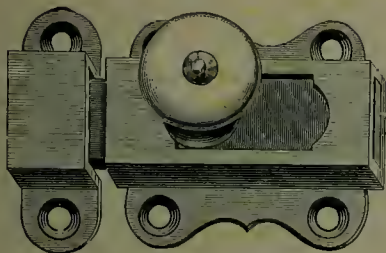
Porcelain Knob, Cast Brass, Polished and Lacquered.

Inch, 2½  
Per Dozen, \$6 50

3  
8 50

4  
10 70

## Cupboard Bolts.



Full Size Cut of No. 205.



Full Size Cut of No. 221. Patented.

Cast Brass.

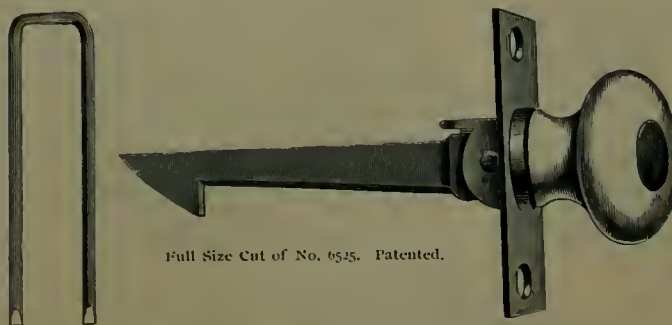
No. 201. 2¼ Inch, Cast Brass, Polished and Lacquered, Brass Knob . . . . . Per Dozen, \$5 40

No. 205. 2¼ " " " " " " " Porcelain Knob . . . . . " " 5 40

Berlin Bronzed.

No. 221. Bronze Metal Knob, Packed with Screws . . . . . Per Dozen, \$2 50

## Lever Cupboard Catches.



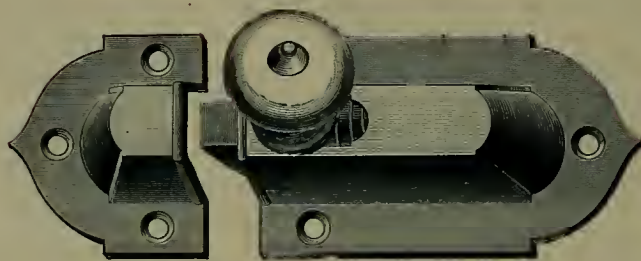
Full Size Cut of No. 6525. Patented.

Patent Fastened Porcelain Knob.

No. 6525. Cast Brass, Polished and Lacquered, Porcelain Knob . . . . .

Per Dozen, \$3 35

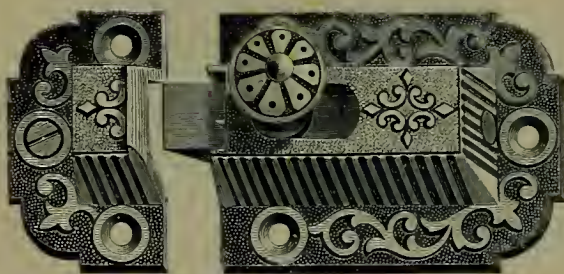
## Rural Cupboard Catches.



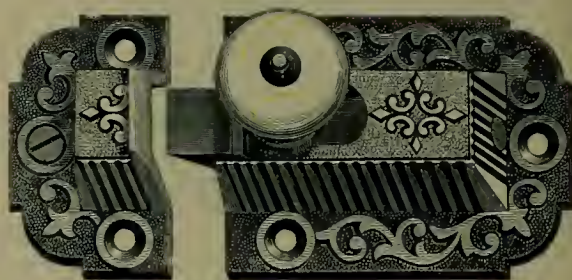
Full Size Cut of No. 307.

No. 302.	Japanned, Brass Knob	Per Gross, \$10 50
No. 307.	" Porcelain Knob	" " 14 00

## Cupboard Catches.



Full Size Cut of No. 262. Patented.



Full Size Cut of No. 267. Patented.

## Patent Triangular Bolt.

No. 262.	Tuscan Bronzed, Bronze Metal Knob, Packed with Screws	Per Gross, \$17 00
No. 267.	" " Porcelain Knob, " " "	" " 17 00

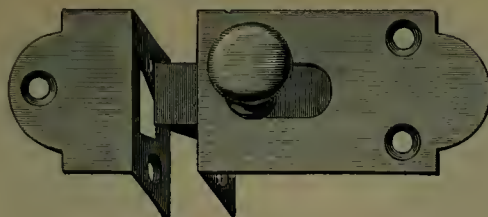


Full Size Cut of No. 493. Patented.

## Patent Triangular Bolt.

No. 493.	Berlin Bronzed, Packed with Screws	Per Gross, \$16 00
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# Wrought Brass Cupboard Catches.



Full Size Cut of No. 2501. Patented.

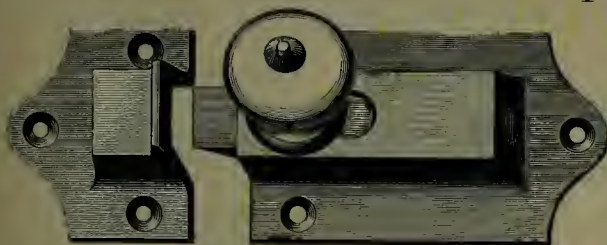
## Patent Triangular Bolt, Wrought Brass Plate, Cast Brass Knob.

Nos. 2500  
Per Gross, \$16 00

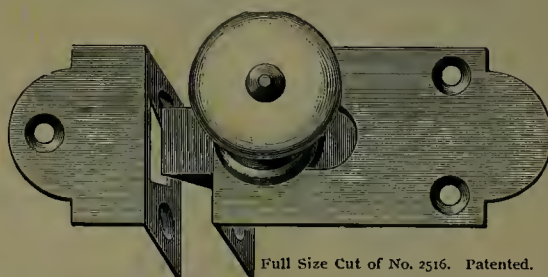
2501  
18 00

2502  
22 00

# Cast Brass Cupboard Catches.



Full Size Cut of No. 507. Patented.



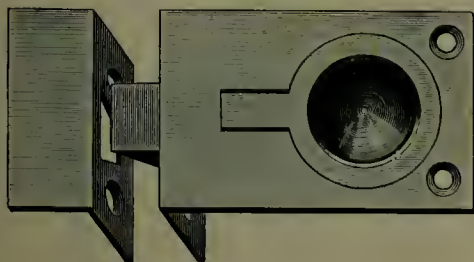
Full Size Cut of No. 2516. Patented.

## Patent Triangular Bolt.

No. 507.	Cast Brass, Polished and Lacquered, Porcelain Knob	Per Gross, \$55 00
No. 2516.	" " Porcelain Knob	" " 36 00
No. 2517.	" " " "	" " 40 00

## Flush Ring Show Case Catches.

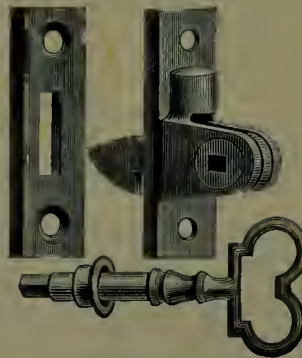
## Cast Brass Show Case Catches.



Full Size Cut.

## Patent Triangular Bolt.

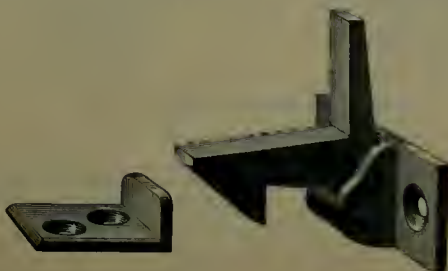
No. 25. Cast Brass, Polished and Lacquered, Per Gross, \$54 00



Full Size Cut.

No. 23. Cast Brass, Polished and Lacquered, Per Gross, \$69 00

## Elbow Catches.



## Japanned.

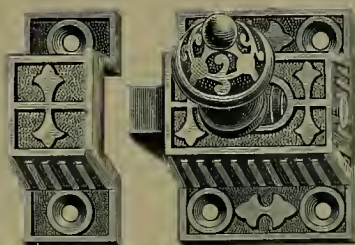
No. 6300 . Per Dozen, \$1 20

## Cast Brass.

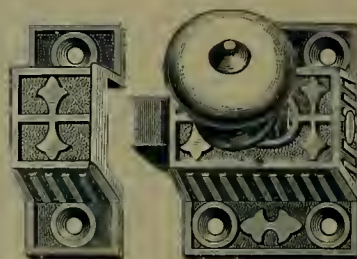
No. 6500 . Per Dozen, \$3 75



## French Window Catches.



Full Size Cut of No. 3210. Patented.



Full Size Cut of No. 3215. Patented.

### Patent Triangular Bolt.

#### Bronze Metal Knob.

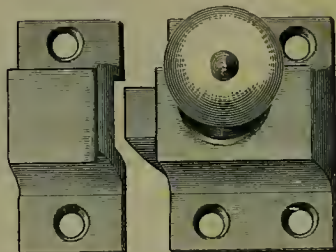
No. 3210.	Tuscan Bronzed	Per Gross,	\$14 00
No. 3211.	" "	" "	15 50
No. 3212.	" "	" "	17 00

#### Cast Brass.

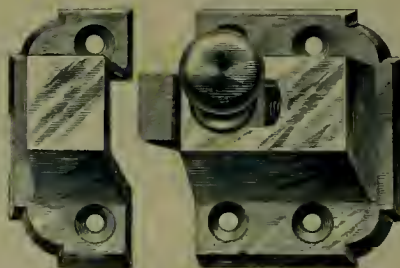
#### Porcelain Knob.

No. 3215.	Tuscan Bronzed	Per Gross,	\$14 00
No. 3216.	" "	" "	15 50
No. 3217.	" "	" "	17 00

#### Nickel-Plated.



Full Size Cut of No. 3505.



Full Size Cut of No. 3721. Patented.

### Patent Triangular Bolt.

#### Porcelain Knob.

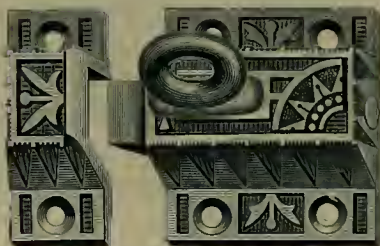
No. 3505.	Cast Brass	Per Gross,	\$39 00
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#### Nickel-Plated Knob.

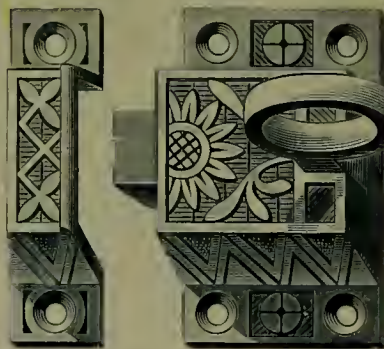
No. 3700.	Square Edges, with Screws,	Per Gross,	\$81 00
No. 3721.	Beveled " " " " "	" "	110 00

## Transom Catches.

### Patent Triangular Bolt, Bronze Metal Ring.



Full Size Cut of Nos. 3242 and 3442. Patented.



Full Size Cut of No. 3243.

ALL PACKED WITH SCREWS.

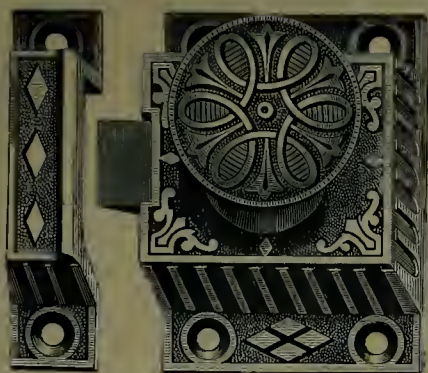
#### Tuscan Bronzed.

Nos.	3240	3241	3242	3243
Per Gross,	\$15 50	17 00	18 50	20 00

#### Berlin Bronzed.

Nos.	3440	3441	3442
Per Gross,	\$17 25	18 75	20 25

## Cupboard Turns.



Full Size Cut of No. 4230. Patented.



Full Size Cut of No. 4432. Patented.

## Patent Triangular Bolt.

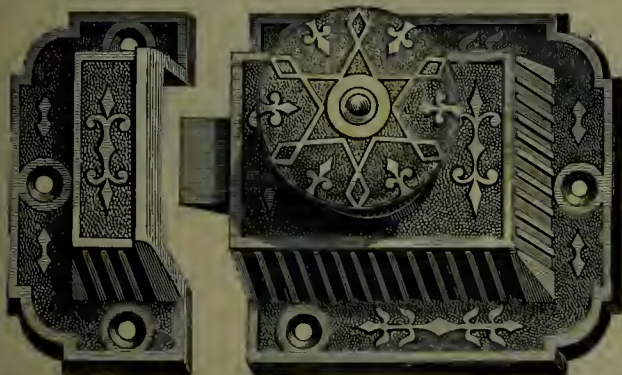
Tuscan Bronzed.

No. 4230. Tuscan Bronzed Knob, with Screws . . . . . Per Dozen, \$3 00

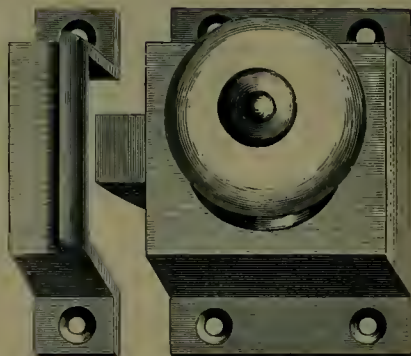
Berlin Bronzed.

No. 4430. Bronze Metal Knob, with Screws . . . . . Per Dozen, \$4 40

No. 4432. " " T Handle, with Screws . . . . . " " 4 60



Full Size Cut of No. 4440. Berlin Bronzed.



Full Size Cut of No. 4515. Patented.

## Patent Triangular Bolt.

Berlin Bronzed.

No. 4440. Beveled Edges, Bronze Metal Knob, with Screws . . . . . Per Dozen, \$5 25

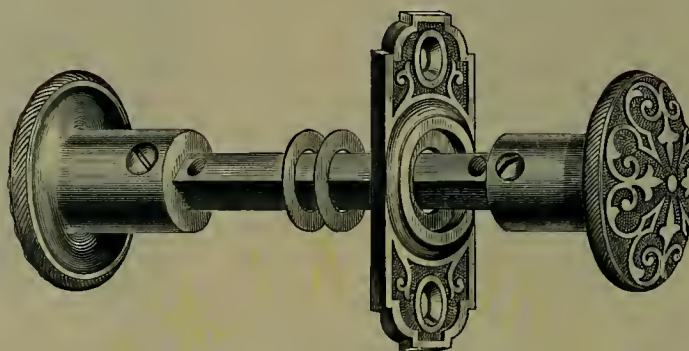
Cast Brass.

No. 4515. Polished and Lacquered, Patent Fastened Porcelain Knob . . . . . Per Dozen, \$10 00



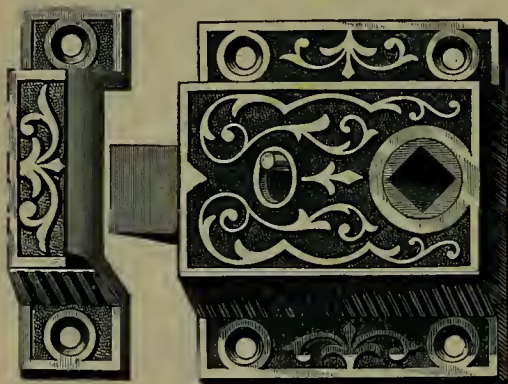
## Screen Door Catches and Knobs.

TUSCAN BRONZED.



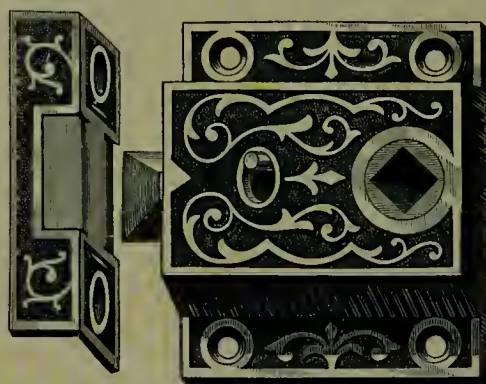
Full Size Cut of Knobs for 6220 and 6244.

REGULAR STRIKE.



Full Size Cut of Nos. 6220 and 6222. Patented.

REVERSE STRIKE.



Full Size Cut of Nos. 6244 and 6246. Patented.

Patent Triangular Bolt.

WITH STOP.

For Doors  $\frac{7}{8}$  to  $1\frac{3}{8}$  Inches Thick. Size of Latch  $2\frac{1}{4} \times 1\frac{7}{8}$  Inches.

Regular Strike.

No. 6220.	Tuscan Bronzed Knobs, with Screws	.	.	.	.	.	.	Per Dozen, \$ 5 00
No. 6222.	Bronze Metal	"	"	"	.	.	.	" " 10 50

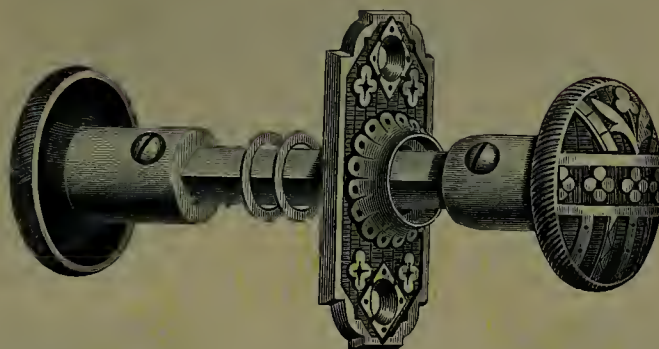
Reverse Strike.

No. 6244.	Tuscan Bronzed Knobs, with Screws	.	.	.	.	.	.	Per Dozen, \$ 5 00
No. 6246.	Bronze Metal	"	"	"	.	.	.	" " 10 50

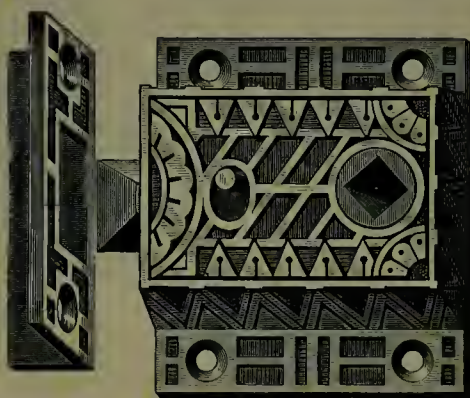


# Screen Door Catches and Knobs.

REAL BRONZE METAL.



Full Size Cut of Knobs.



Full Size Cut of Nos. 7842 and 7942. Patented.

REVERSE STRIKE.

Patent Triangular Bolt.

WITH STOP.

For Doors  $\frac{7}{8}$  to  $1\frac{3}{8}$  Inches Thick. Size of Latch  $2\frac{1}{4} \times 1\frac{7}{8}$  Inches.

Light Bronze.

(Natural Color.)

No. 7842. Bronze Metal Knobs, with Screws . . . . . Per Dozen, \$23 50

\* "Imperial" Bronze.

No. 7942. "Imperial" Bronze Knobs, with Screws . . . . . Per Dozen, \$23 50

\* "Imperial."—Raised Surface in Polished Natural Color, with Black Background.

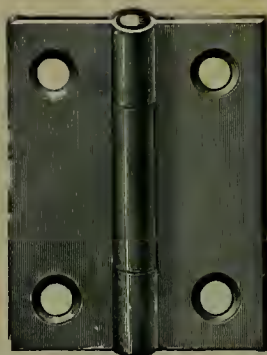
## No. 810. Wrought Iron Table Butts.

Full Size Cut of  $1\frac{1}{4}$  Inch, Table Butts.

Inch,	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$	$1\frac{5}{8}$	$1\frac{3}{4}$	2
Per Dozen Pairs,	\$0 43	0 45	0 50	0 55	0 60	0 65	0 70	0 75	0 85

## No. 838.

Wrought Iron Light Narrow Butts.



Full Size Cut of 2 Inch.

Inch,	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{4}$	$2\frac{1}{2}$	3
Per Doz. Pairs,	\$0 28	0 32	0 36	0 43	0 50	0 60	0 66	0 72	0 90

## No. 800.

Wrought Iron Regular Narrow Butts.



Full Size Cut of 2 Inch.

Inch,	2	$2\frac{1}{4}$	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5
Per Doz. Pairs,	\$0 60	0 66	0 72	0 90	1 44	1 92	2 70	3 30

## No. 814. Wrought Iron Regular Back Flaps.

Full Size Cut of  $1\frac{1}{4}$  Inch, Back Flaps.

Inch,	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$	$1\frac{5}{8}$	$1\frac{3}{4}$	2
Per Dozen Pairs,	\$0 45	0 47	0 50	0 55	0 60	0 65	0 70	0 75	0 80	0 90

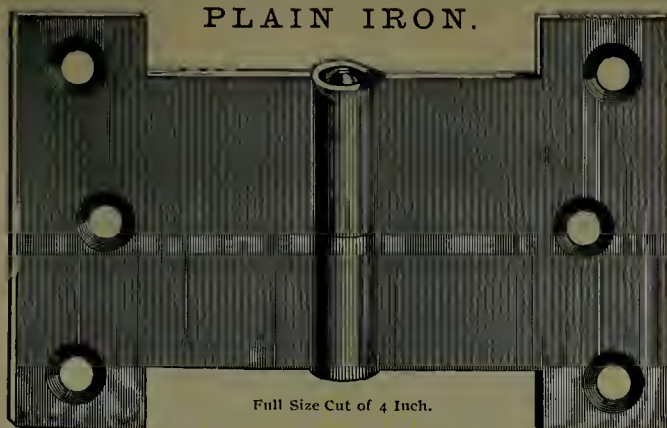
## No. 816. Wrought Iron Square Back Flaps.

Inch,	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$	$1\frac{5}{8}$	$1\frac{3}{4}$	2
Per Dozen Pairs,	\$0 45	0 50	0 55	0 60	0 65	0 70	0 75	0 85

# No. 830. Wrought Iron Parliament Butts.

121

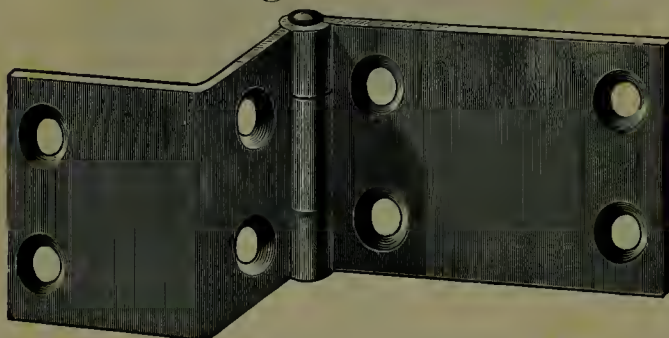
## PLAIN IRON.



Full Size Cut of 4 Inch.

Width Open,	3	4	5	6	7	8
Per Dozen Pairs,	\$1 60	1 90	2 10	2 50	3 10	3 90
Size of Screw, No.	8	9	9	10	11	12

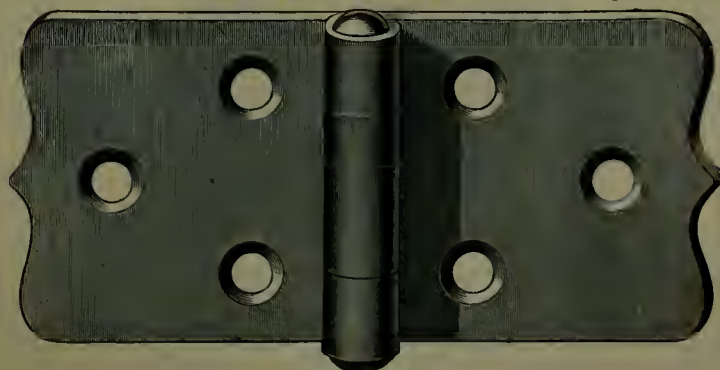
# No. 820. Wrought Iron Chest Hinges.



Full Size Cut of 1½ Inch.

Inch,	1½	2
Per Dozen Pairs,	\$1 08	1 44
Inside of Bend to Centre of Pin, Inch,	15/16	1

# No. 1312. Galvanized Wash-Tray Hinges.



With Brass Pins.

FOR THE PURPOSE INTENDED, AS GOOD AS ALL BRASS.

One Size Only.

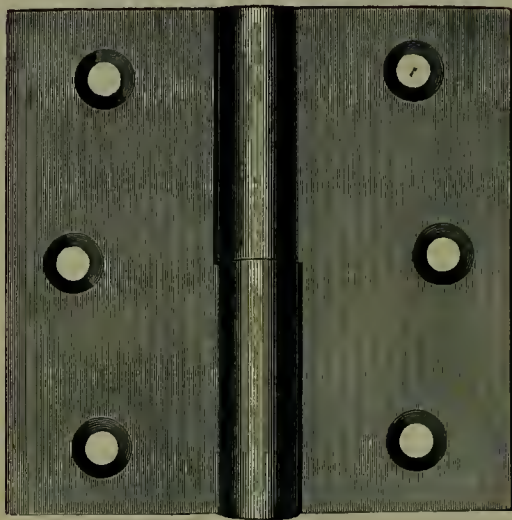
2 x 4¼ Inch, when Open,

Per Dozen Pairs, \$3 00



## No. 50. Loose Joint Cast Butts.

DRILLED.

Full Size Cut of  $3\frac{1}{2} \times 3$  Inch.

Broad.

Inch,	2x2	2½x2	2½x2½	3x2½	3x3	3½x3	3½x3½	4x4	4½x4½	5x5	5½x5½	6x6
Per Dozen Pairs, \$	1 00	1 20	1 35	1 60	1 75	2 15	2 35	2 90	4 00	5 50	6 50	7 60

Above sent half RIGHT and half LEFT Hand, unless otherwise ordered.

## No. 840. Wrought Iron Loose Pin Butts.



Full Size Cut of 2 Inch Light Narrow.

Light Narrow, Loose Pin.

Inch,	1½	1¾	2	2¼	2½
Per Dozen Pairs, \$	0 56	0 65	0 78	0 86	0 94

Regular, Loose Pin.

Inch,	2x2	2x2½	2½x2½	3x2½	3x3	3½x3½	4x4	4½x4½	5x5
Per Dozen Pairs, \$	1 10	1 20	1 32	1 68	1 86	2 70	3 30	4 25	5 50

# No. 159. Loose Joint Acorn Tip Butts.

123

JAPANNED.

SILVERED ACORNS.



Drilled.

Steel Washer.

Full Size Cut of No. 159. 3 x 3.

Inch, 2x2	2½x2	2½x2½	3x2½	3x3	3½x3	3½x3½	4x4	4½x4½	5x5	5x6	5¼x5½	6x6
Per Doz. Pairs, \$6 40	6 80	7 00	7 20	7 30	8 30	8 80	10 00	10 80	13 30	14 80	14 80	16 80

Above sent half RIGHT and half LEFT Hand, unless otherwise ordered.

## No. 290. Loose Joint Cast Parliament Butts.



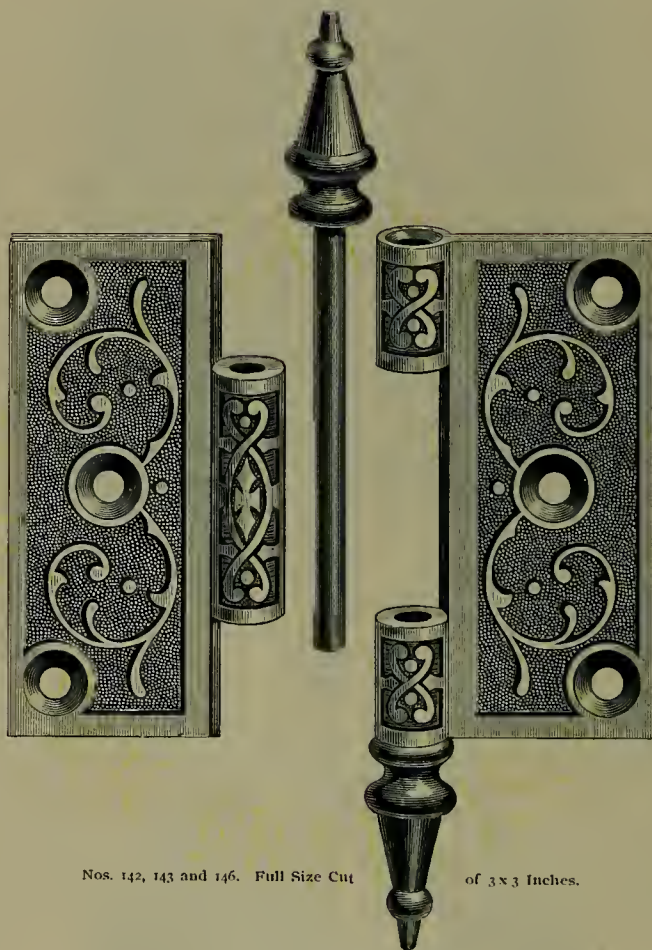
Drilled.

Size, 2¼ Inch when Open

Per Dozen Pairs, \$1 00

# Loose Pin Acorn Tip Butts.

DRILLED.



Nos. 142, 143 and 146. Full Size Cut of 3x3 inches.

EITHER RIGHT OR LEFT HAND.

No. 142 not Japanned. With Acorns.

Inch,	2x2	2½x2	2½x2½	3x2½	3x3	3½x3	3½x3½	4x4	4½x4½	5x5	5½x5½	6x6
Per Dozen Pairs,	\$1 00	1 20	1 35	1 60	1 75	2 15	2 35	2 90	4 00	5 50	6 50	7 60

No. 143 Japanned Butt. Japanned Acorns.

Inch,	2x2	2½x2	2½x2½	3x2½	3x3	3½x3½	4x4	4½x4½	5x5	5½x5½	6x6
Per Dozen Pairs,	\$2 00	2 30	2 50	2 80	3 00	3 70	4 50	5 50	7 00	8 50	10 50



# Berlin Bronzed Loose Pin Butts.

No.

0149.



EITHER RIGHT

OR LEFT HAND.

Bronze Tips.

Inch,	2 x 2	2½ x 2½	3 x 3	3½ x 3½	4 x 4	4½ x 4½	5 x 5	5½ x 5½	5 x 6	6 x 6
Per Pair, \$	0 65	0 70	0 75	0 80	0 90	1 05	1 15	1 25	1 35	1 75

Packed complete with Screws.

## Ornamental Bronze Loose Pin Butts.

HEAVY.

No.

129.



EITHER RIGHT OR LEFT HAND.

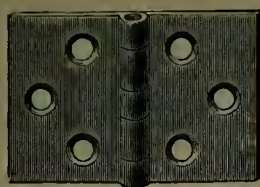
Four Steel Bushings, Two at Each Joint.

Inch,	3x3	3½x3½	4x4	4½x4½	5x5	6x6
Per Pair,	\$1 60	1 80	2 20	2 60	3 00	4 50

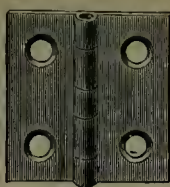
Packed complete with Screws.



## Wrought Brass Butts.



1 INCH. DESK.



BROAD.



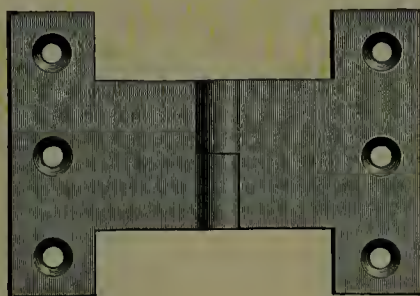
MIDDLE.



NARROW.

Length, In.	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$	$1\frac{5}{8}$	$1\frac{3}{4}$	$1\frac{7}{8}$	2	$2\frac{1}{4}$	$2\frac{1}{2}$	$2\frac{3}{4}$	3
Narrow,	\$0 38	0 38	0 42	0 48	0 54	0 60	0 67	0 78	0 90	0 96	1 06	1 23	1 73	1 92	2 12	2 80
Middle,	\$0 45	0 45	0 48	0 54	0 60	0 67	0 75	0 87	1 00	1 10	1 17	1 44	1 80	2 34	2 85	3 70
Broad,	\$0 50	0 50	0 52	0 60	0 72	0 80	0 84	1 00	1 12	1 30	1 48	1 70	2 20	2 60	3 09	4 27
Desk,	\$0 57	0 60	0 72	0 87	1 08	1 27	1 50	1 80	2 10	2 70	2 93	3 50				

## Brass Loose Joint Parliament Butts.



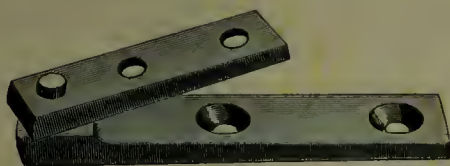
No. 590. Cast Brass.

$2\frac{1}{2}$  Inch when Open . . . Per Dozen Pairs, \$3 50  
 $2\frac{3}{4}$  " " " " " " " 4 25

Wrought Brass.

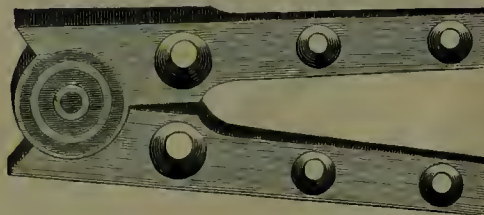
$2\frac{1}{2}$  Inch when Open . . . Per Dozen Pairs, \$2 00

## Pin Hinges.



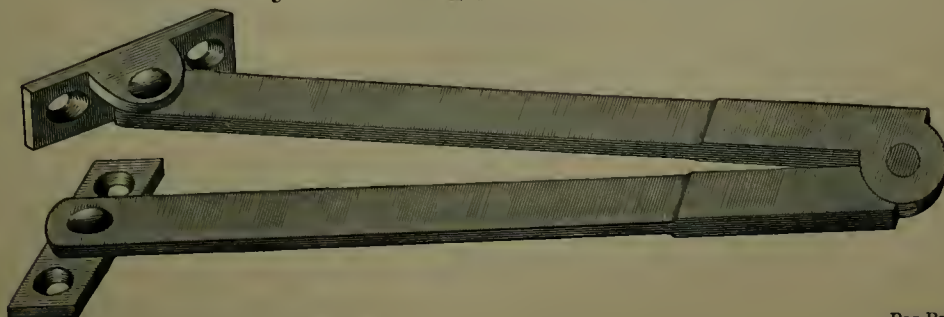
No. 5. 3 Inch, Cast Brass, . . . Per Dozen Pairs, \$3 00

## Quadrant Hinges.



No. 1127. 3 In. Closed, Cast Brass, Per Doz. Pairs, \$8 00

## Stay or Support Hinges.



$5\frac{1}{2}$  Inch Closed, 11 Inch Open, Polished Cast Brass . . . . .

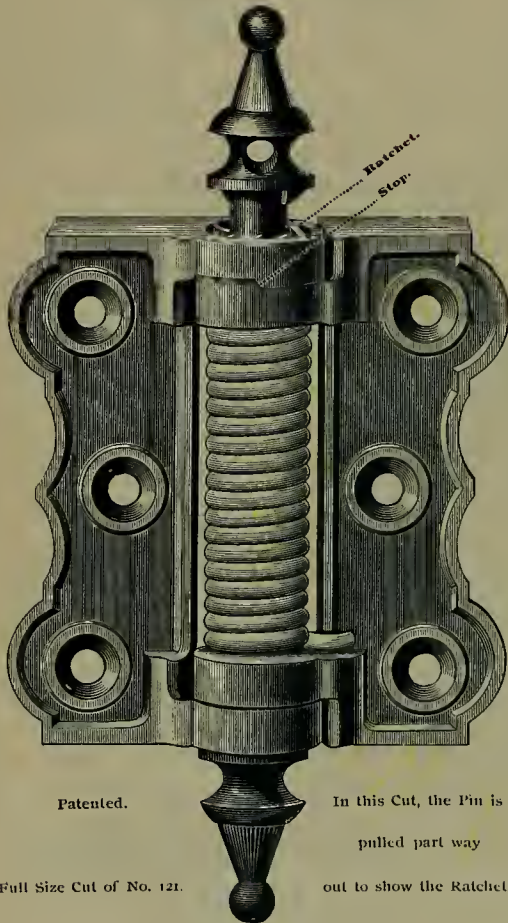
Per Pair, \$2 00



# Patent Ratchet Spring Hinges.

SURFACE.

MORTISE

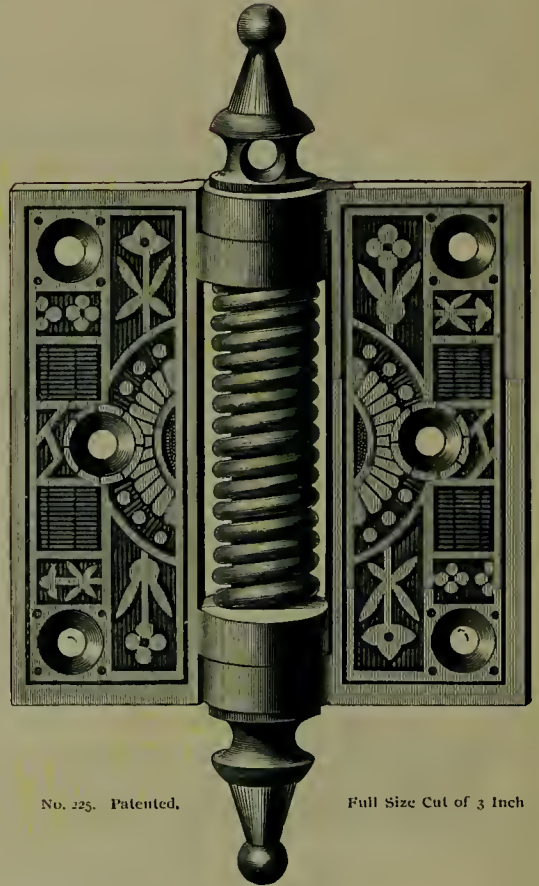


Patented.

Full Size Cut of No. 121.

In this Cut, the Pin is  
pulled part way  
out to show the Ratchet.

No. 121, with Stop.



No. 225. Patented.

Full Size Cut of 3 Inch

No. 225.

Single Acting, to Swing one way.

ADJUSTABLE TENSION, EITHER RIGHT OR LEFT HAND.

Surface.

No. 121. 3 Inch, Tuscan Bronzed, Tinned Spring, without Screws

Per Dozen Pairs, \$3 00

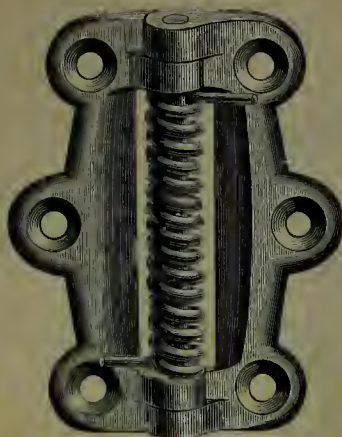
Mortise.

No. 225. 3 Inch, Tuscan Bronzed, Tinned Spring, packed with Screws

Per Dozen Pairs, \$3 75

# Surface Spring Hinges.

TUSCAN BRONZED.



Malleable Iron. Brass Spring.

SINGLE ACTING, TO SWING ONE WAY.

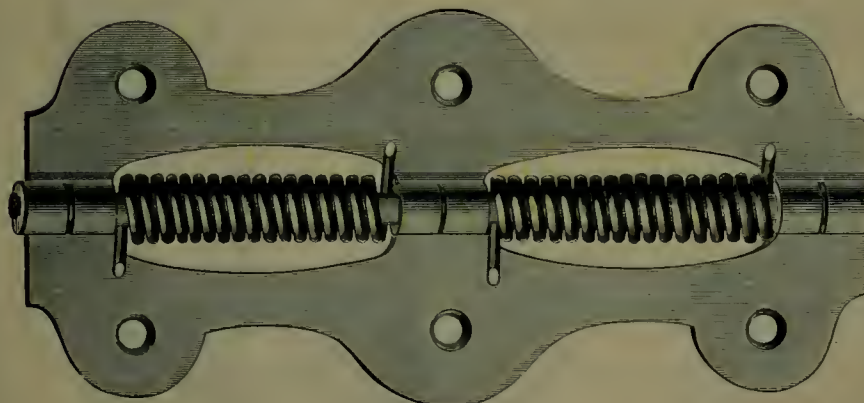
No. 2-10.

Inch,	2	2½	3
Per Dozen Pairs,	\$3 00	3 60	4 40

Above packed with Screws.

## Wrought Brass Spring Hinges.

PATENT ANTI-FRICTION SPRING.



Cut of 5 Inch, Single Joint.

TO BE USED ON DOORS 1 INCH THICK AND UNDER.

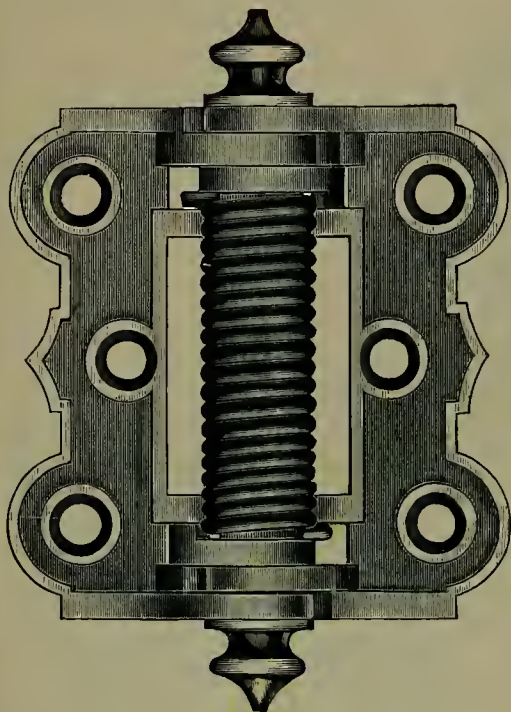
Single Joint. (To swing one way)

Inch,	2½	3	5
Per Dozen Pairs,	\$3 00	4 50	7 50

Double Joint. (To swing both ways)

Inch,	2½	3	5
Per Dozen Pairs,	\$6 60	8 30	16 50

## "Chicago" Spring Butts.



REVERSE SPRING

SCREEN DOOR HINGE.

Japanned.

Per Dozen . . . . . \$3 00

This Hinge is made for Surface only.

## DOUBLE-ACTING SPRING BUTTS.

When applied to the Door, the Spring of this style is concealed when closed.

The Spring has a purchase power in closing the Door.

### PRICE LIST.

Nos.	I	31	41
Doors.	Japanned.	Bronze-Plated.	Real Bronze.
$\frac{3}{8}$ to 1 Inch.	Per Pair, \$ 1 20	\$ 3 00	\$ 8 50
1 $\frac{1}{8}$ " 1 $\frac{1}{4}$ "	" " 1 50	3 75	9 50
1 $\frac{3}{8}$ " 1 $\frac{1}{2}$ "	" " 2 50	5 50	12 00
1 $\frac{3}{4}$ " 2 "	" " 4 00	7 50	20 00
2 $\frac{1}{4}$ " 2 $\frac{1}{2}$ "	" " 7 00	10 00	30 00
2 $\frac{3}{4}$ " 3 $\frac{1}{2}$ "	" " 10 00	14 00	39 00





Engine House Spring Hinge.

"Reliance" Door Spring.

**"Garden City"****Fire Engine House Spring Hinge**

No. 9. Japanned.

For Stall Doors . . . . .	Per Pair, \$3 00
" Front " . . . . .	" " 5 00

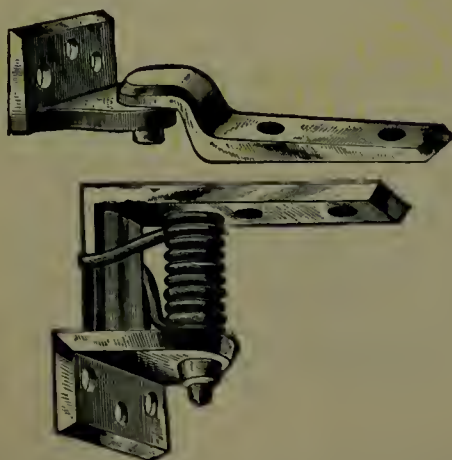
**"Reliance" Door Spring.**

No. 270.

Coppered Spring.

Light . . . . .	Per Dozen, \$1 50
Medium . . . . .	" " 2 25
Heavy . . . . .	" " 3 50

No. 270.

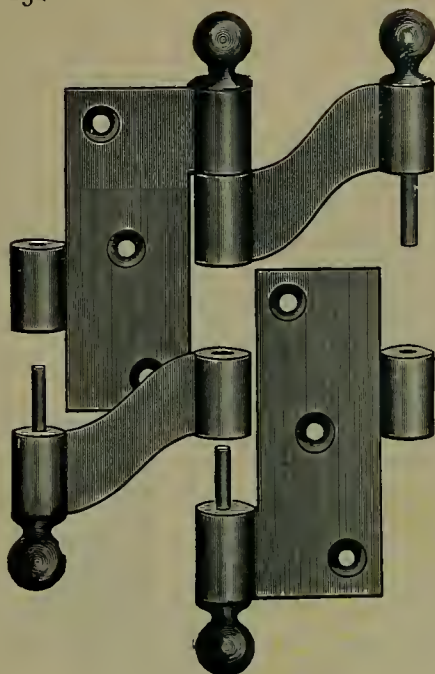
**"Keene's" Patent Double-Acting Saloon Door Hinge.**

This Butt has the advantage of allowing the door to be lifted from its bearings without removing screws or pins.

Nos. 7	27	37	47	57
Japanned.	Nickel-Plated.	Bronze-Plated.	Real Bronze.	Brass.
Per Pair.	Per Pair.	Per Pair.	Per Pair.	Per Pair.
\$0 75	\$1 50	\$1 50	\$5 00	\$5 00

# "Chicago"

## Double-Acting Blank Butts.



### PRICE LIST.

Nos.	3	23	33	43
DOORS.	Japanned. Per Pair.	Nickel-Plated. Per Pair.	Bronze-Plated. Per Pair.	Real Bronze. Per Pair.
$\frac{7}{8}$ to 1 Inch.	\$0 60	\$1 50	\$1 50	\$4 25
1 $\frac{1}{8}$ " 1 $\frac{1}{4}$ "	0 75	1 88	1 88	4 75
1 $\frac{3}{8}$ " 1 $\frac{1}{2}$ "	1 25	2 75	2 75	6 00
1 $\frac{3}{4}$ " 2 "	2 00	3 75	3 75	10 00
2 $\frac{1}{4}$ " 2 $\frac{1}{2}$ "	3 50	5 00	5 00	15 00
2 $\frac{3}{4}$ " 3 $\frac{1}{2}$ "	5 00	6 50	6 50	19 50

To economize for light doors, put a Spring Butt at the top and a Blank Butt at the bottom of the door. Never use a Blank on outside doors, as it takes the full power of two springs to hold door against the draught. Always put it below the Spring Butt.

## "Gem" Spring Hinges.

### DOUBLE-ACTING. OCTAGON TIP.

Suitable for either Right or Left Hand Doors.

The largest Hinge that the thickness of the door will permit, will work the best.

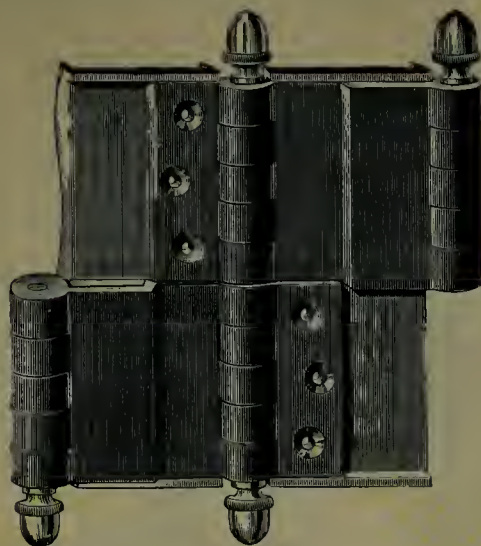
Japanned. Plain.

### PRICE LIST.

Nos.	Size.	For Doors.	Length of Flanges	Per Pair.
83	6x2 Feet.	$\frac{3}{4}$ to 1 $\frac{1}{8}$ Inch.	3 $\frac{1}{2}$ Inches.	\$ 1 60
84	7x2 "	1 " 1 $\frac{3}{8}$ "	4 "	2 00
85	7x2 $\frac{1}{4}$ "	1 " 1 $\frac{1}{2}$ "	5 "	2 50
86	7x2 $\frac{1}{2}$ "	1 " 1 $\frac{3}{4}$ "	6 "	3 50
87	8x2 $\frac{1}{2}$ "	1 $\frac{1}{4}$ " 1 $\frac{7}{8}$ "	7 "	4 50
88	8x3 "	1 $\frac{1}{2}$ " 2 $\frac{1}{4}$ "	8 "	6 50
89	9x3 "	1 $\frac{3}{4}$ " 2 $\frac{1}{2}$ "	10 "	9 00
90	10x3 "	2 " 3 "	12 "	12 00



# "Barker's" Double Reversed Joint Butts.



FOR DOORS TO SWING BOTH WAYS.

WITH SPRINGS, COMPLETE.

Iron, Japanned, with Plated Acorn Tips.

Nos.	0	1	2	3	4	5	6	7	8
For Doors, Inch,	1	1¼	1½	1¾	2	2¼	2½	2¾	3
Per Pair,	\$3 25	3 50	3 75	4 50	5 25	6 75	12 00	13 75	15 00

Bronze Metal, Polished and Lacquered.

Nos.	0	1	2	3	4	5	6	7	8
For Doors, Inch,	1	1¼	1½	1¾	2	2¼	2½	2¾	3
Per Pair,	\$9 00	10 50	12 00	14 00	16 00	19 00	24 00	28 00	32 00

## The Hook Door Spring.



APPLIED TO THE HINGE SIDE OF THE DOOR.

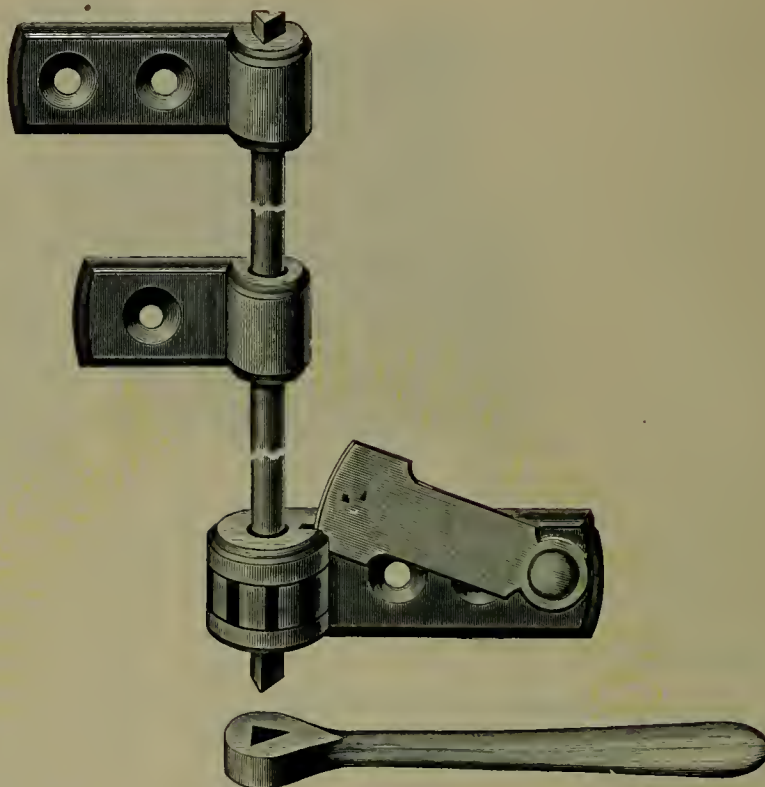
This Door and Screen Spring is easily understood, and can readily be applied to the door, and its *power regulated by hand*. It can also be removed from the door and replaced in five seconds, without touching a screw or using a tool, yet the Spring is *securely* held in place, and *always* in *perfect* order. It is made of fine crucible spring steel, carefully tempered, which secures a uniform and superior quality.

Japanned.

No. 0.	Screen Spring and for very Light Doors	Per Dozen, \$3 00
No. 1.	With Strength sufficient for most Doors	" " 6 00
No. 2.	For very Large, Heavy Doors	" " 6 50



## "Torrey's" Door Springs.

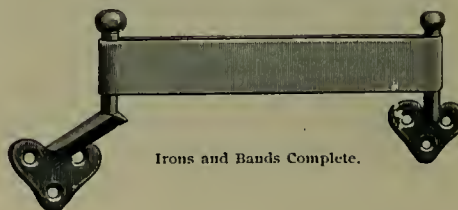


Malleable Iron, Steel Rod, Japanned.

Packed one dozen in a package, with Screws

Per Dozen, \$7 00

## Rubber Door Springs.



Irons and Bands Complete.

Complete and Separate.

No. 1. Irons only, Japanned	Per Dozen, \$0 60
No. 2. Rubber Bands only	" " 3 90
No. 3. Irons and Bands, complete	" " 4 50







# "Orr's" Blind Hinges.

137



HOOK.

Wrought Iron, 1½ Inch

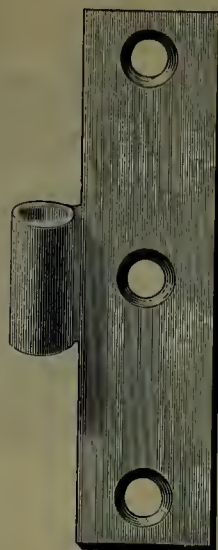


PLATE.

Per 100 Sets, \$13 00

# "Orr's" Blind Fast.



SILL AND BACK CATCH.

No. 1 Fast.



No. 1 and No. 2 Fast.

Price per 100 Sets, \$9 00



BACK CATCH.

No. 2 Fast.

# Corner Irons.



Half Size Cut of 1½ Inch.

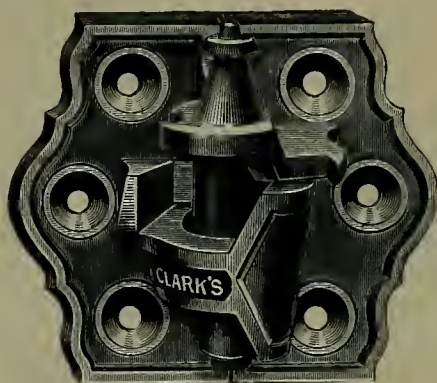
Wrought Iron.

HEAVY.

No. 14.

Inch,	1	1¼	1½
Per Dozen,	\$0 92	1 15	2 00

## "Clark's" Surface Gravity-Locking Blind Hinge.



Full Size Cut of No. 1.



Blind Fastening without Spring.

These Hinges are made in two parts, the *Upper and Lower being alike*. Three or more may be used on long Blinds *without mismatching sets*, and all will fasten. The Blinds, when open, fasten parallel with the house, and not against it. They will not rattle or close by the wind.

### PRICE LIST.

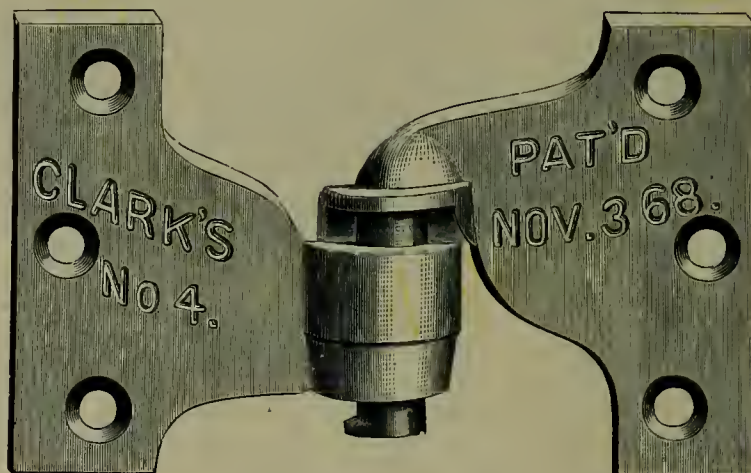
#### For Wood.

No. 1. Throws the Blind  $1\frac{1}{4}$  Inches from Casing.  
Per Dozen Sets, \$3 50

#### For Brick.

No. 5. Throws the Blind  $4\frac{1}{2}$  Inches from Casing.  
Per Dozen Sets, \$10 00

## "Clark's" Mortise Gravity-Locking Blind Hinges.



Full Size Cut of No. 4.

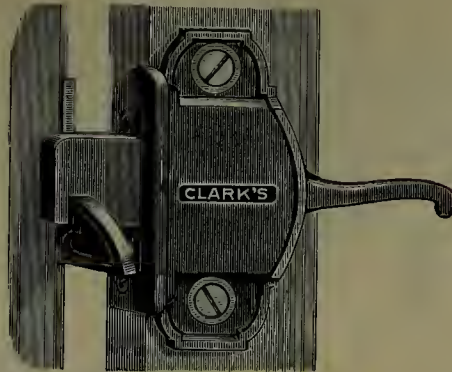
These Mortise Hinges are extra heavy, and in strength, proportion and finish cannot be excelled. The Blind will not rattle or close by the wind. *Both Upper and Lower Hinges are alike*, are easily operated, and any number can be used on a Blind, and all will fasten.

### PRICE LIST.

No. 2.	3	Inches.	When open throws Blind $1\frac{1}{4}$ Inches from Casing						Per Dozen Sets, \$ 4 00
No. 4.	$4\frac{1}{2}$	"	" " " " $2\frac{1}{2}$ " " "						5 00
No. 6.	$5\frac{1}{2}$	"	" " " " $3\frac{1}{2}$ " " "						6 00
No. 8.	$6\frac{1}{2}$	"	" " " " $4\frac{1}{2}$ " " "						10 00
No. 10.	$8\frac{1}{2}$	"	" " " " $6\frac{1}{2}$ " " "						16 00

All above put up in Paper Boxes. Sets complete with Inside Fastenings.

# "Clark's" Reversible Gate Hinges.



No. 1. GATE LATCH.



No. 1. UPPER GATE HINGE.



No. 1. LOWER GATE HINGE.

Self Closing, to Swing One Way.

Requires no mortising, is easily attached, and will reverse for either Right or Left Hand Gates. Interchangeable Pins.

## PRICE LIST.

No. 1. Hinges and Latch complete	Per Dozen Sets, \$6 00
No. 1. Latch only	Per Dozen, 2 00

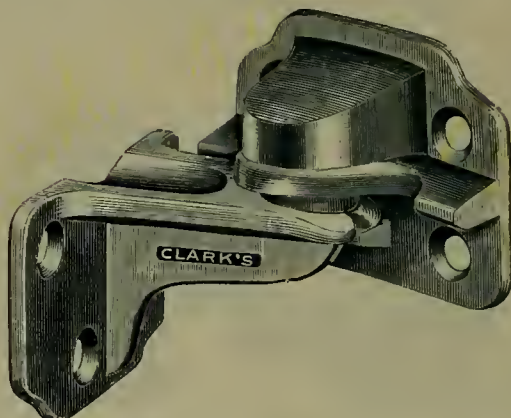
Packed in Paper Boxes, one set in a box.



# "Clark's" Double-Acting Gate Hinges.



No. 2. GATE LATCH.



No. 2. UPPER GATE HINGE.



No. 2. LOWER GATE HINGE.

## To Swing Both Ways.

This Hinge is of great strength, requires no mortising, but is applied to the surface of the post and stile. It cannot be disconnected in working, and the gate is held wide open, when desired, on either side by the peculiar construction of the Upper Hinge.

The GATE LATCH is encased, and requires but small mortise through the stile.

The CATCH is so formed as to prevent the rebound of the gate.

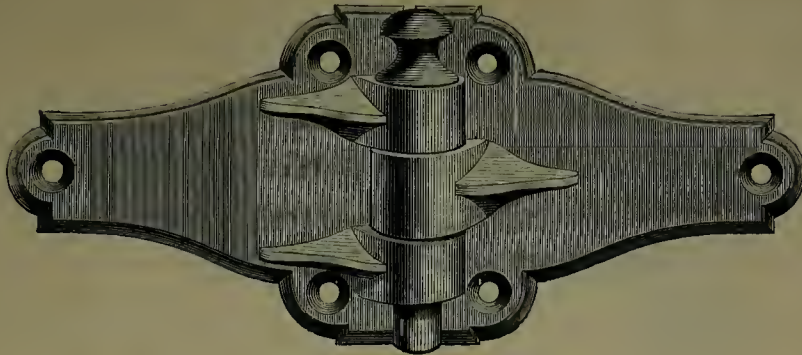
### PRICE LIST.

No. 2. Hinges and Latch complete . . . . .	Per Dozen Sets, \$8 00
No. 2. Latch only . . . . .	Per Dozen, 2 00

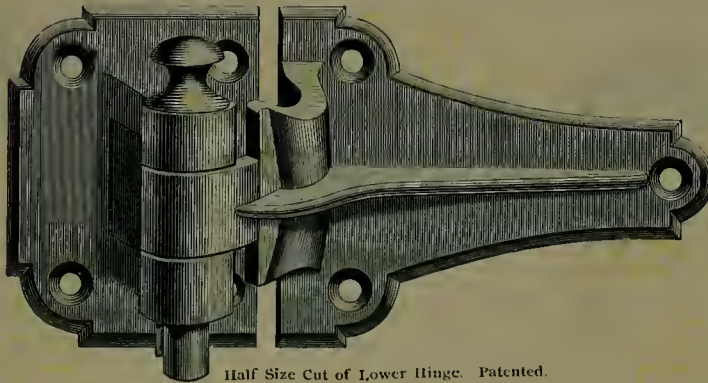
Packed in Paper Boxes, one set in a box.

# Reversible Gate Hinges.

141



Half Size Cut of Upper Hinge. Patented.



Half Size Cut of Lower Hinge. Patented.



Half Size Cut of No. 1. Upright Latch and Catch



Half Size Cut of No. 11. Upright Latch and Catch

Self Shutting. Either Right or Left Hand.

## Hinges.

Without Latch.

No. 114. Hinges only . . . Per Dozen Sets, \$6 20

With Latch.

No. 115. Hinges complete with No. 1 Upright Latch.  
Per Dozen Sets, \$7 65

## Latches.

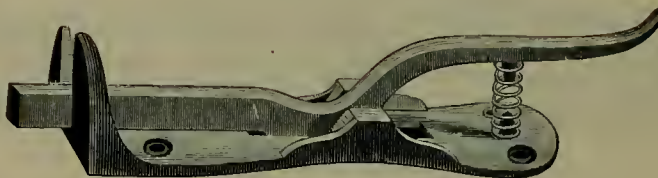
No. 1. Riveted . . .

Per Dozen, \$1 45

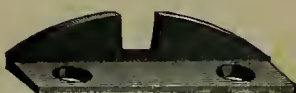
No. 11. Not Riveted . . .

" " 1 25

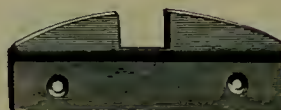
## Top Gate Latches.



Half Size Cut of Latch of both Nos. 14 and 16.



Catch for No. 14.



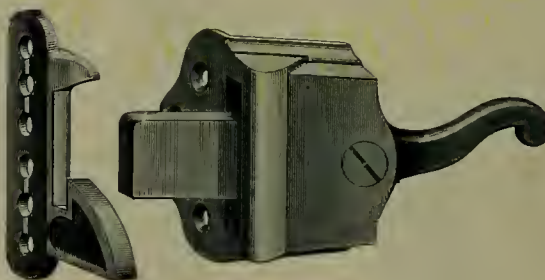
Catch for No. 16.

JAPANNED.

For Gates to Swing both ways.

No. 14 . . . . .	Per Dozen, \$1 65	{	No. 16 . . . . .	Per Dozen, \$1 65
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## Surface Gate Latches.



Half Size Cut of Patent Latch No. 7.

JAPANNED.

For Gates to Swing one way.

No. 7 . . . . .	Per Dozen, \$1 55
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## The "Scranton" Patent Automatic Hinge.



MALLEABLE IRON. JAPANNED.

These Hinges are simple and perfect in automatic action, there being no springs or complicated parts to get out of order and break. The principle of operation is that of a steel roller working on an inclined plane.

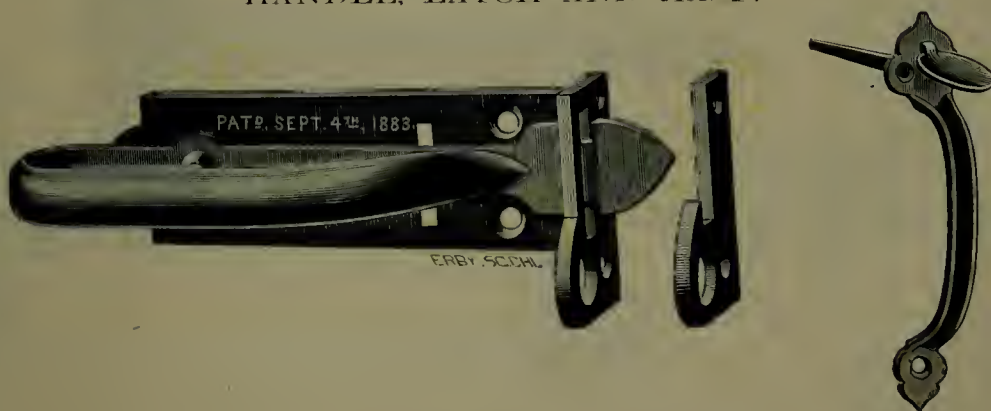
### PRICES.

No. 32.	For Ordinary Gates and Doors	Per Dozen Pairs, \$ 8 00
No. 33.	" Farm and Road Gates	" " " 13 50

## "Scranton" Combination Latch.

COMPRISING

HANDLE, LATCH AND HASP.



Thumb Latch.

MALLEABLE IRON. JAPANNED.

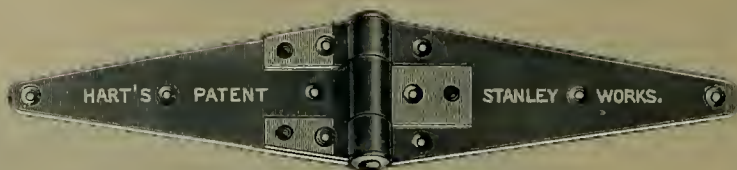
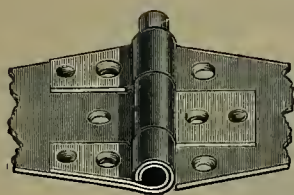
Reversible for both Sliding and Hinge Doors.

This Latch fills a demand for a cheap, substantial article to take the place of the ordinary Hasp and Staple. The use of Padlock in securing door is provided for.

### PRICES.

No. 27.	Without Thumb Latch	Per Dozen, \$2 75
No. 28.	With Thumb Latch attachment	" " 3 00

# "Hart's" Patent Strap Hinges.



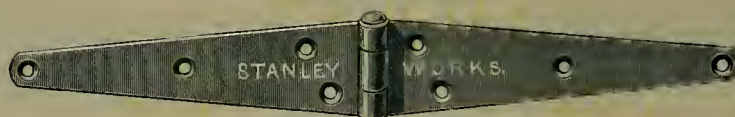
## HEAVY STRAP.

Inch,	5	6	8	10	12	14
Per Dozen Pairs,	\$2 00	2 80	4 40	6 60	9 40	12 00

## EXTRA HEAVY T.

Inch,	6	8	10	12
Per Dozen Pairs,	\$3 30	5 15	7 40	10 90

## Light Strap Hinges.



## WROUGHT IRON.

Inch,	3	4	5	6	7	8	10	12	14	16
Per Dozen Pairs,	\$1 00	1 20	1 40	1 70	2 25	2 50	3 50	6 00	7 50	9 00

## Heavy Strap Hinges.

Inch,	4	5	Inch,	6	8	10	12	14	16
Per Dozen Pairs,	\$1 40	1 85	Cts. per lb,	14	13½	13	12½	12	12

## Light T Hinges.



## WROUGHT IRON.

Inch,	3	4	5	6	8	10	12
Per Dozen Pairs,	\$1 00	1 10	1 30	1 50	1 80	2 40	3 75

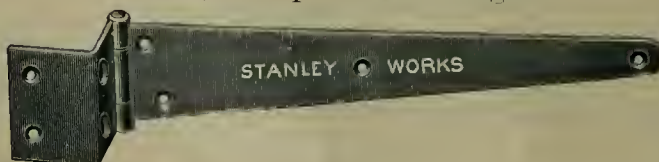
## Heavy T Hinges.

Inch,	6	8	10	12	14
Per Dozen Pairs,	\$1 70	2 25	3 25	5 00	7 00

## Extra Heavy T Hinges.

Inch,	5	Inch,	6	8	10	12	14	16
Per Dozen Pairs,	\$2 50	Cts. per lb,	14½	14	13½	13	12½	12½

## Long Strap Chest Hinges.



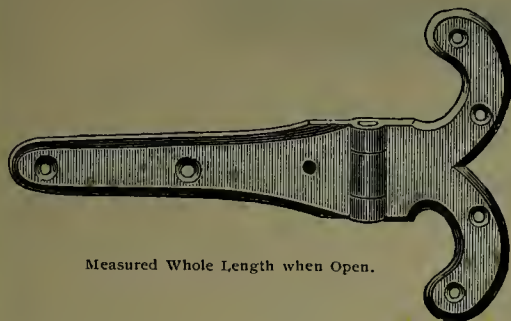
Inch,	6	6	8	10	12
Per Dozen Pairs,	\$1 75	1 75	2 00	2 50	3 00
Projection, Inch,	½	¾	¾	1	1

# Cast Brass Strap Hinges.

145



Port Hinges.



Measured Whole Length when Open.



Measured from Centre of Pin.

Rough.

Sizes, 6 to 10 Inches

Per Pound, \$0 50

## Ship Hinges.

GALVANIZED MALLEABLE IRON.



STRAP.



HOOK.

PORT.

Nos. 2  
Entire Length, Inch, 13 1/2  
Per Pair, \$1 12

Nos. 10  
Entire Length, Inch, 6  
Per Pair, \$0 35

Nos. 20  
Entire Length, Inch, 10  
Per Pair, Cts., 30

### Hook Hinges.

4 6  
11 1/2 8 1/2  
0 87 0 75

### Port Hinges.

12 14  
9 12  
0 60 1 00

### Strap Hinges.

22 24  
8 6  
25 20



## Wrought Heavy Hook Hinges.



Wood Screw Hook, not Welded.

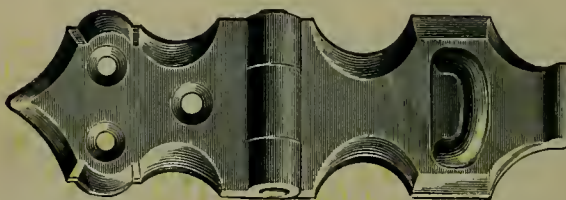
12 Inch . . . . .	Per Pound, \$0 10
16, 18, 20, 22, 24, 26, 28, 30, 36 Inch . . . . .	" " 0 10

## Wrought Iron Padlock Hasps.



Inch,	3	4½	6	8	10
Per Dozen Pairs, \$	1 75	2 00	2 25	3 50	4 75

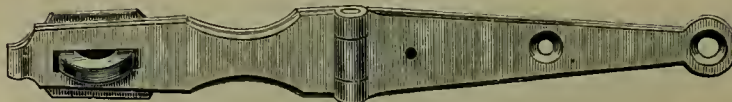
## Brass (or Composition) Hasps.



FINISHED.

No. 0. Length, 3½ x 1¼ Inches . . . . .	Per Dozen, \$3 00
No. 10. " 5¼ " . . . . .	" " 4 50

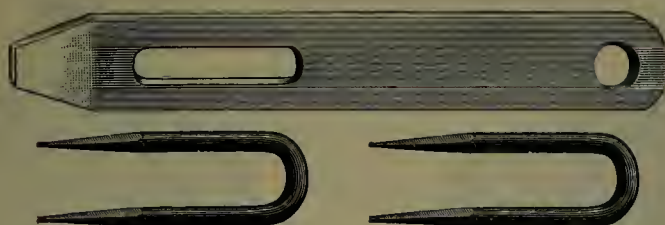
## Brass Composition Hasps.



Measured the Whole Length.

Finished.			Rough.		
6 Inches Long . . . . .	Per Dozen, \$	6 00	6 Inches Long . . . . .	Per lb, \$	0 50
8 " " . . . . .	" "	7 50	8 " " . . . . .	" "	0 50
10 " " . . . . .	" "	10 00	10 " " . . . . .	" "	0 50

## Wrought Hasps and Staples.



Staples made by Hand from Norway Iron.

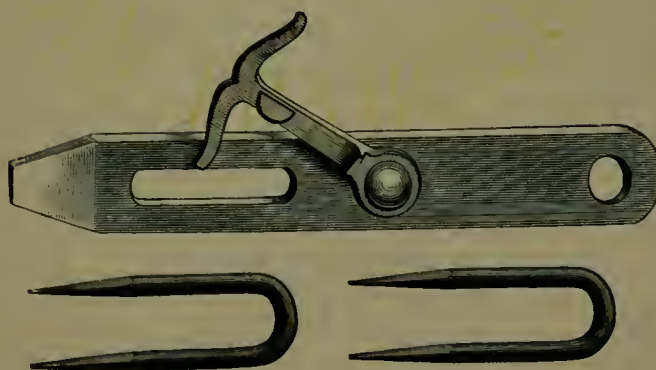
### No. 20. Wrought Iron.

Inch,	4	5	6	7	8	9	10	12
Per Dozen, \$	84	0 90	1 00	1 10	1 30	1 70	1 80	2 60

### No. 22, Galvanized Wrought Iron.

Inch,	4	5	6	7	8	9	10	12
Per Dozen, \$	1 50	1 60	1 80	2 00	2 50	3 00	3 50	4 50

## Wrought Hooks, Hasps and Staples.

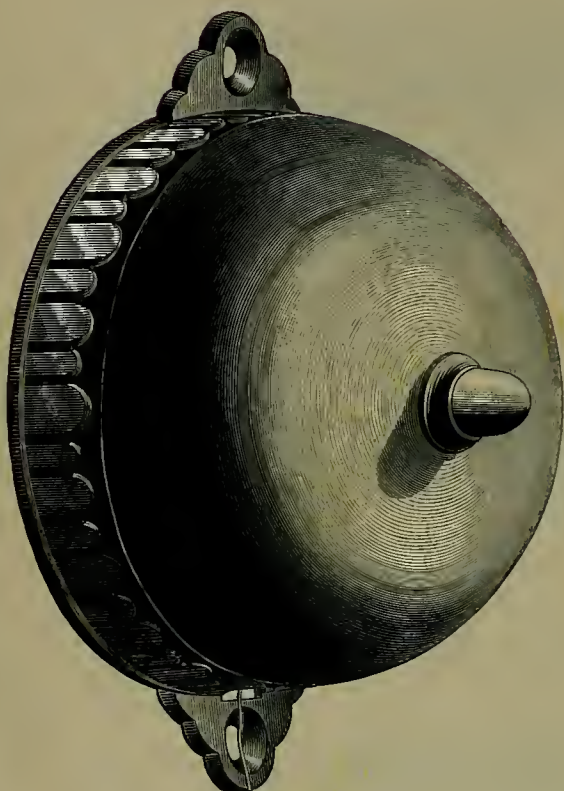


Staples made by Hand from Norway Iron.

### No. 30. Wrought Iron.

Inch,	5	6	7	8	9	10	12
Per Dozen, \$	1 20	1 40	1 60	1 80	2 20	2 50	3 84

## Lever and Pull Door Bells.



PLAIN BELL.

Full Size Cut of Nos. 3½ and 13½. Patented.



FANCY BELL.

Full Size Cut of Nos. 203½, 213½ and 243½. Patented.

## PLAIN BELLS.

## Bell Metal.

No. 3½.	3½ Inch	.	.	Per Dozen, \$15 00
No. 5.	5 "	.	.	" " 21 50

## Nickel-Plated.

No. 13½.	3½ Inch	.	.	Per Dozen, \$18 50
No. 15.	5 "	.	.	" " 26 00

## FANCY BELLS.

## Bell Metal.

No. 203½.	3½ Inch	.	.	Per Dozen, \$15 00
No. 205.	5 "	.	.	" " 21 50

## Nickel-Plated.

No. 213½.	3½ Inch	.	.	Per Dozen, \$18 50
No. 215.	5 "	.	.	" " 26 00

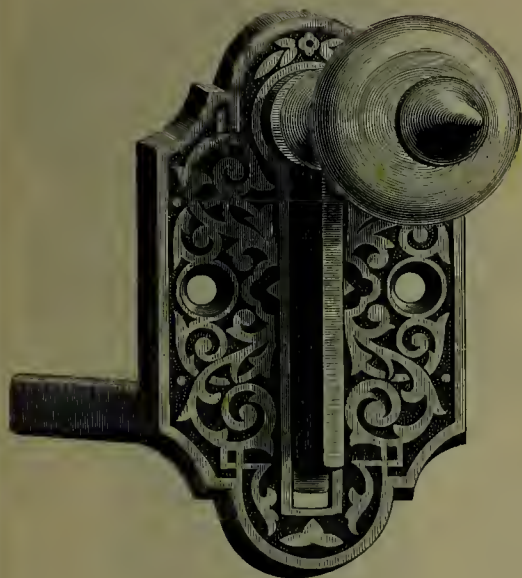
## Berlin Bronzed.

No. 243½.	3½ Inch	.	.	Per Dozen, \$10 00
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All the above Bells packed with Screws.



## Levers for Door Bells.



Full Size Cut of No. 401. Patented.



Full Size Cut of No. 806. Patented.

PACKED WITH SCREWS.

Berlin Bronzed.

No. 401. With Porcelain Knob

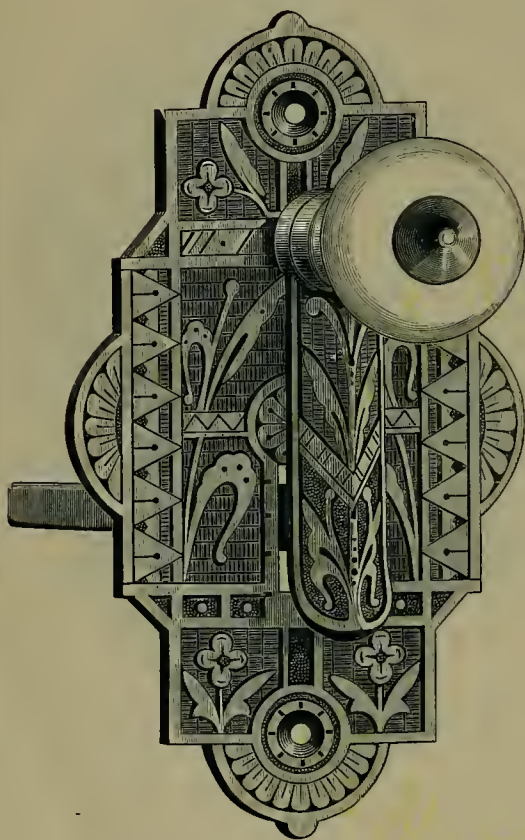
Per Dozen, \$4 40

Bronze Metal.

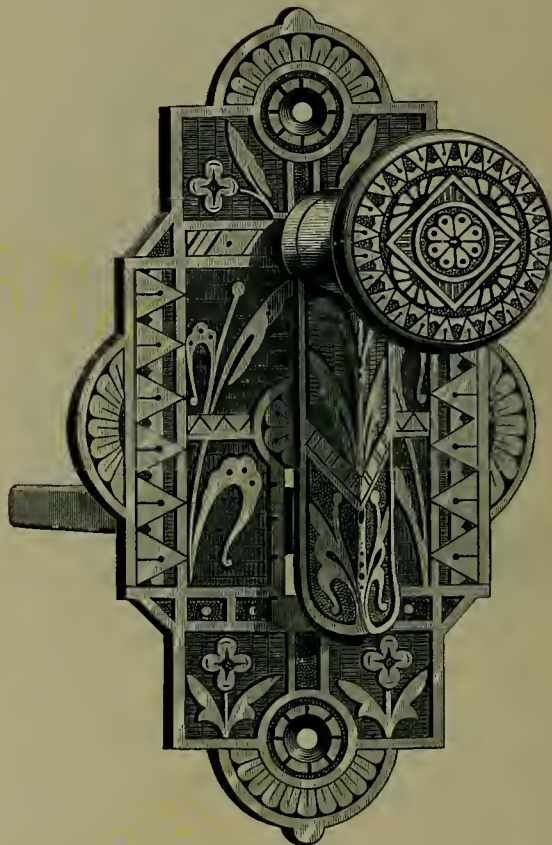
No. 806. With Fancy Bronze Metal Knob

Per Dozen, \$11 75

## Levers for Door Bells.



Full Size Cut of No. 404. Patented.



Full Size Cut of Nos. 804 and 904. Patented.

PACKED WITH SCREWS.

### Berlin Bronzed.

No. 404.	With Porcelain Knob	.	.	.	.	.	.	.	.	Per Dozen, \$5 00
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### Bronze Metal.

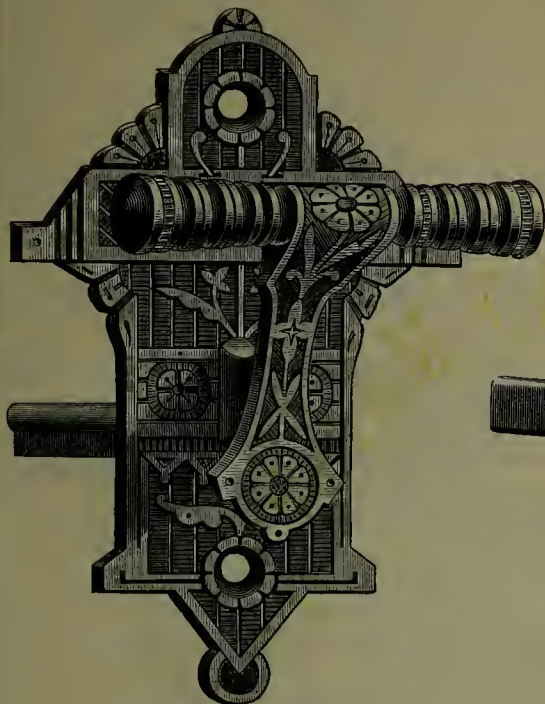
No. 804.	With Fancy Bronze Metal Knob	.	.	.	.	.	.	.	.	Per Dozen, \$15 00
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### \* "Imperial" Bronze.

No. 904.	With Fancy Imperial Bronze Knob	.	.	.	.	.	.	.	.	Per Dozen, \$15 00
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\* "Imperial."—Raised Surface in Polished Natural Bronze Color, with Black Background.

## Levers for Door Bells.



Full Size Cut of Nos. 402, 802 and 902.



Full Size Cut of Nos. 405 and 805.

PACKED WITH SCREWS.

### Berlin Bronzed.

No. 402.	With Fancy T Handle	Per Dozen, \$3 00
No. 405.	" " " "	" " 4 00

### Bronze Metal.

No. 802.	With Fancy Bronze Metal T Handle	Per Dozen, \$10 00
No. 805.	" " " " " "	" " \$15 00

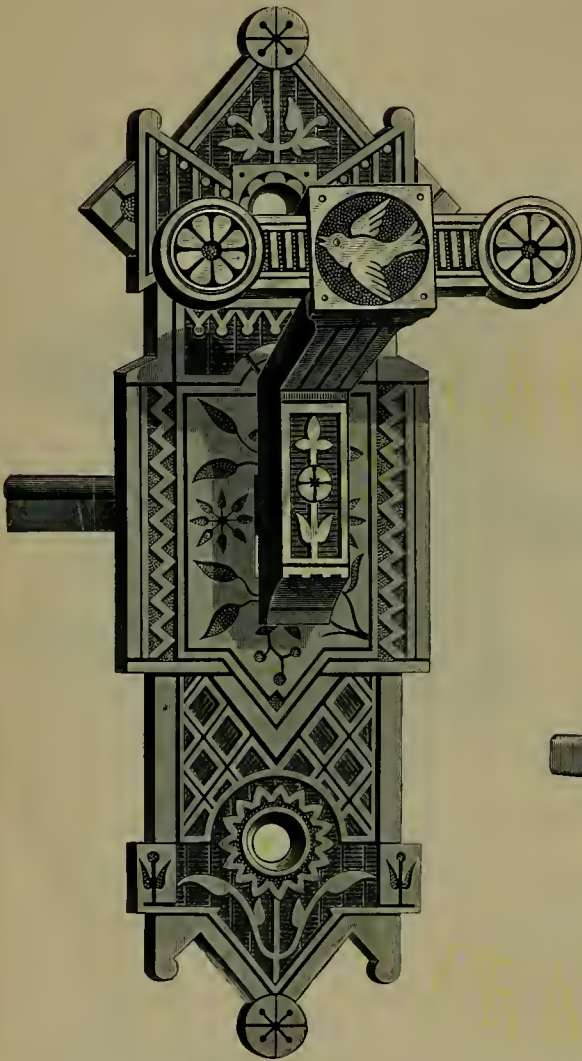
### \*"Imperial" Bronze.

No. 902.	With Fancy Imperial Bronze T Handle	Per Dozen, \$10 00
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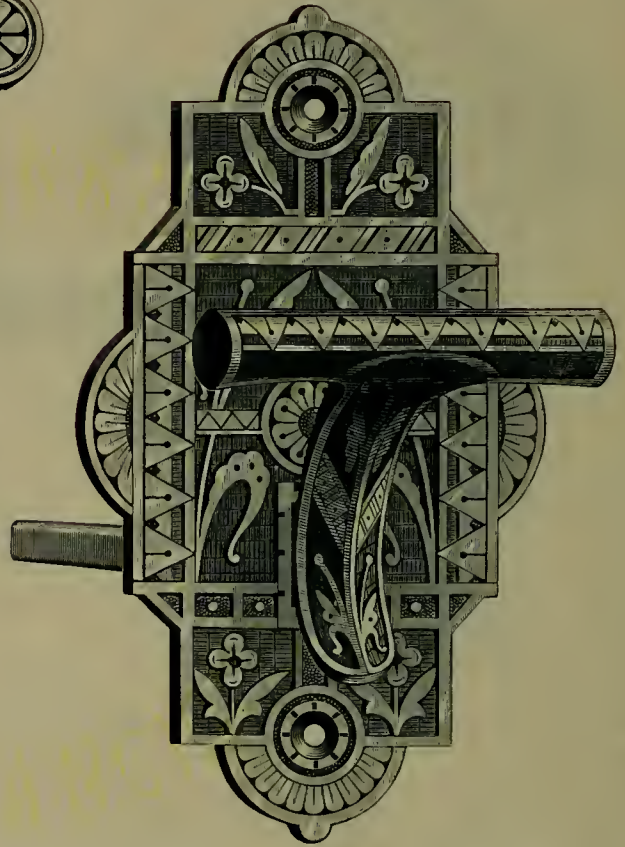
\*"Imperial."—Raised Surface in Polished Natural Bronze Color, with Black Background.



## Levers for Door Bells.



Full Size Cut of No. 415. Patented.



Full Size Cut of Nos. 403, 803 and 903. Patented.

PACKED WITH SCREWS.

## Berlin Bronzed.

No. 403.	With Fancy T Handle	Per Dozen, \$3 40
No. 415.	" " " "	" " 4 50

## Bronze Metal.

No. 803.	With Fancy Bronze Metal T Handle	Per Dozen, \$13 00
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## \* "Imperial" Bronze.

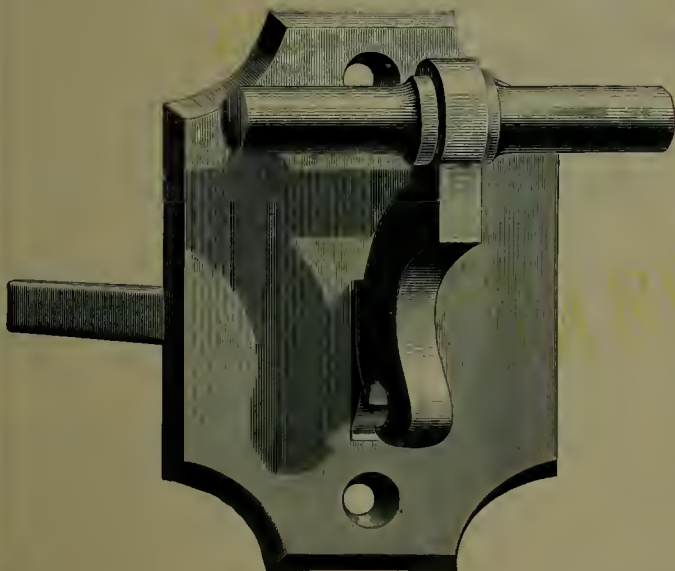
No. 903.	With Fancy Imperial Bronze T Handle	Per Dozen, \$13 00
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\* "Imperial."—Raised Surface in Polished Natural Bronze Color, with Black Background.

# Levers for Door Bells.



Full Size Cut of Nos. 609 and 809. Patented.



Full Size Cut of No. 708. Patented.

PACKED WITH SCREWS.

Silver-Plated.

No. 609. Silver-Plated on Cast Brass, Fancy T Handle

Per Dozen, \$16 00

Nickel-Plated.

No. 708. Nickel-Plated on Cast Brass, Plain T Handle

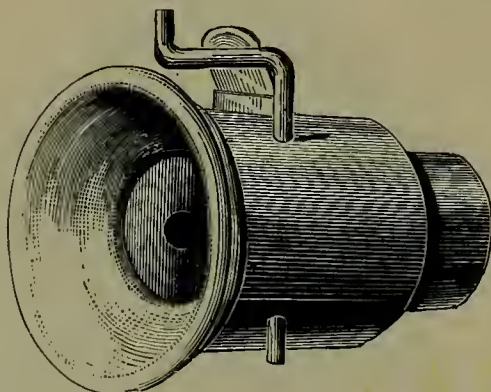
Per Dozen, \$16 25

Bronze Metal.

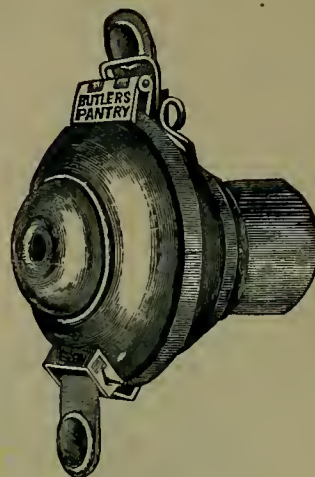
No. 809. With Fancy Bronze Metal T Handle

Per Dozen, \$16 00

## Alarm Whistles.



No. 158 (New.)



No. 21, with Indicator.

## Porcelain Mouth Piece, Japanned Body.

No. 158. With Indicator . . . Per Dozen, \$4 50 | No. 159. Without Indicator . . . Per Dozen, \$4 00

## Brass, Nickel-Plated.

No. 21. With Indicator . . . Per Dozen, \$11 00 | No. 22. Without Indicator . . . Per Dozen, \$10 00

Tin Speaking Tube.	Elbows for Tin Speaking Tube.	Zinc Bell Tube.
1 Inch. . . Per 100 ft., \$3 00	Square Turn . . . Per 100, \$3 50	Per Pound . . . \$0 30
	Roud " . . . " " 6 00	

## Spring Alarm Door Bells.



Half Size Cut of No. 134.

## Polished Bell.

## Japanned Spring.

No. 132. With No. 2 Bell . . . . .	Per Dozen, \$ 9 60
No. 133. " No. 3 " . . . . .	" " 11 25
No. 134. " No. 4 " . . . . .	" " 13 50

Half Dozen in a Package.





## Bronze Metal Bell Slide.

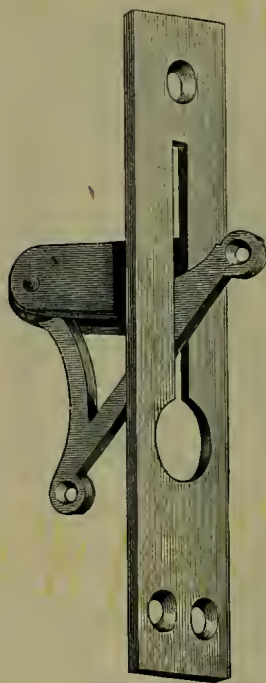


Full Size Cut of No. 65.

Bronze Metal.

No. 65.	5 Inch, Packed with Screws	Per Dozen, \$11 00
No. 66.	6 " " " "	" " 13 00

## Mortise Bell Cranks.



Iron.

No. 11.	Painted Face	Per Gross, \$8 60
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Cast Brass.

No. 1.	Polished and Lacquered	Per Gross, \$28 75
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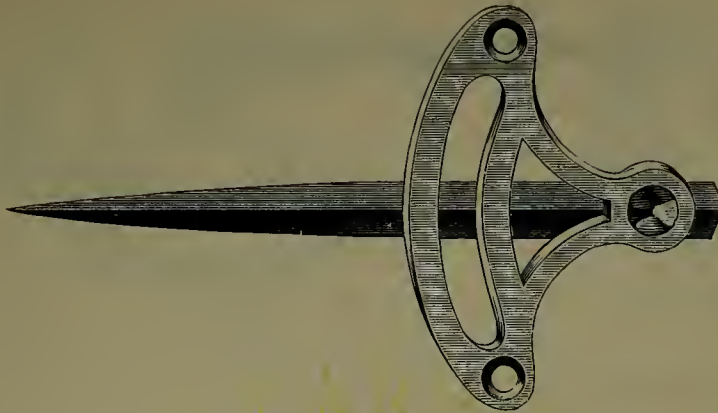
## Check Springs.



Full Size Cut of No. 5.

No. 5.	5 Inches Long, Bright Spring Wire No. 18	Per Gross, \$6 75
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## Side Bell Cranks.



Full Size Cut of Nos. 2 and 12.

No. 2. Cast Brass, Malleable Iron Spike  
 No. 12. Japanned, " " "

Per Gross, \$11 80  
 " " 6 75



Full Size Cut of No. 4.

No. 4. Cast Brass, Heavy, Wrought Iron Spike

Per Gross, \$16 30



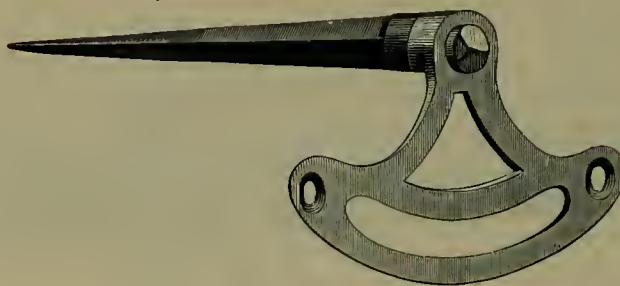
Full Size Cut of No. 32.

No. 32. Japanned, on Plates

Per Gross, \$6 75

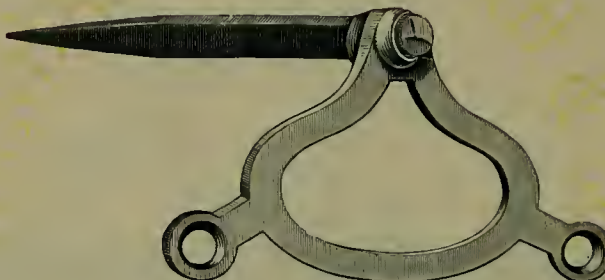


## End Bell Cranks.



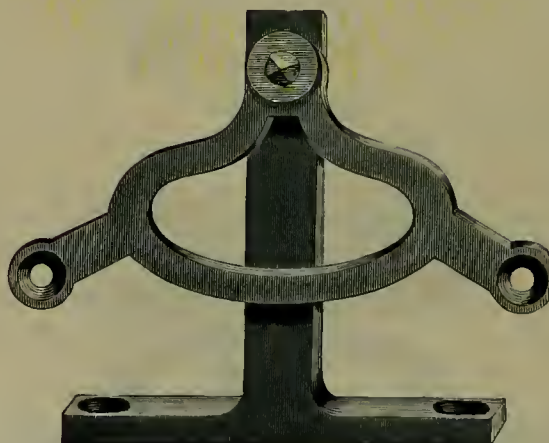
Full Size Cut of Nos. 3 and 13.

No. 3.	Cast Brass, Malleable Iron Spike	Per Gross, \$10 70
No. 13.	Japanned, " " "	" " 6 25



Full Size Cut of No. 5.

No. 5.	Cast Brass, Heavy, Wrought Iron Spike	Per Gross, \$14 00
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Full Size Cut of No. 33.

No. 33.	Japanned, on Plates	Per Gross, \$9 60
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## House Bells.



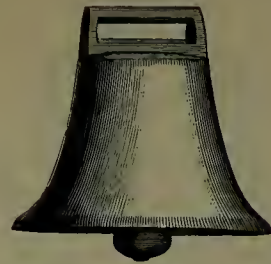
Rough.

Assorted from 2 to 4 Inch . . . . . Per lb, \$0 45

Polished.

Assorted from 2 to 4 Inch . . . . . Per lb, \$0 51

## Horse Car Bells.



Pure Bell Metal. Rough.

3 Inch Mouth . . . . . Per lb, \$0 72  
3½ " " . . . . . " " 0 72

## Hand Bells.

Fine Polish.



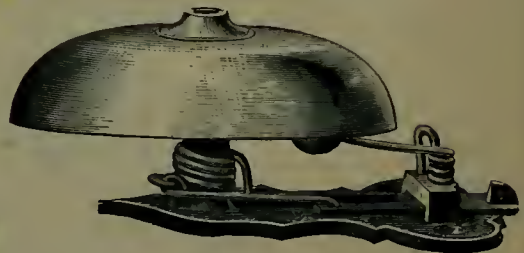
Fine Polish, Extra Heavy. Half Size Cut of No. 6.

Nos.	0	1	2	3	4	5	6
Diam. of Mouth,	2¼	2½	2¾	3	3½	3¾	4 Inch.
Per Dozen,	\$2 25	2 62	3 50	4 50	6 50	8 50	11 25

Nos.	7	8	9	10	12	14	16
Diam. of Mouth,	4¾	5¼	5½	6	6½	6¾	8 Inch.
Per Dozen,	\$13 75	18 50	24 00	30 00	36 00	48 00	54 00

## "Abbe's" Patent Gong Bells.



Half Size Cut of 5 Inch.

No. 20. Bronzed Steel.

Inch, 3 4  
Per Dozen, \$4 00 5 00

No. 30. Polished Bell Metal.

Inch, 3 4 5 6 7 8  
Per Dozen, \$8 00 10 00 14 00 20 00 28 00 40 00

## "Yankee" Alarm Door Bells.

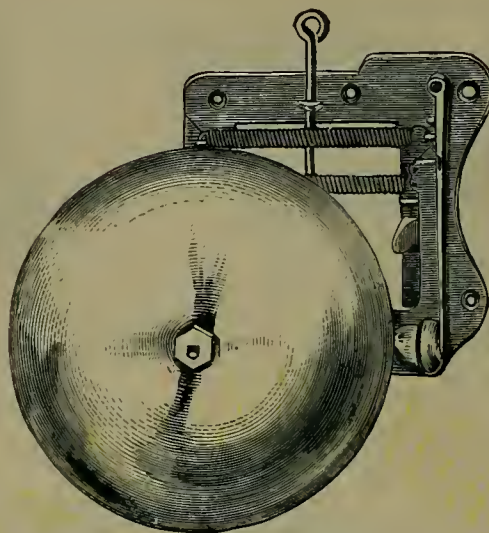


4 Inch.

No. 125. Bronzed Steel Bell . . . . . Per Dozen, \$ 5 00

No. 135. Polished Bell Metal Bell . . . . . " " 10 00

# Steamboat and Locomotive Gongs.



## Trip Gongs.

Size, Inch,	3	4	5
Each,	\$2 25	2 75	3 25

## Locomotive Gongs.

Size, Inch,	6	7	8	10	12	15	18
Each,	\$4 30	5 75	6 75	9 00	15 00	21 00	36 00

Slow Bells made to order, of any Pattern.

## Spring Brass Check Springs.



Size, Inch,	$\frac{3}{8} \times 6\frac{1}{2}$	$\frac{1}{2} \times 8$	$\frac{5}{8} \times 9\frac{1}{2}$	$\frac{3}{4} \times 10\frac{1}{2}$	$\frac{7}{8} \times 11\frac{1}{2}$	1 x 13
Each,	\$0 30	0 35	0 50	0 65	0 85	0 95

## Gong Pulls or Bell Slides.



SMALL.  
For one Finger.  
Each, \$0 75

MEDIUM.  
For two Fingers.  
Each, \$1 25

LARGE.  
For three Fingers.  
Each, \$2 00

## Bell Cranks or Angles.

SIDE OR HORIZONTAL.

END OR UPRIGHT.

### Brass Cranks, Mounted on Iron.

TO BE PUT ON WITH SCREWS.



Small Radius, 2 Inch	Each, \$0 50
Large " 2½ "	" 0 75





## Kentucky Cow Bells.



Half Size Cut of No. 2.

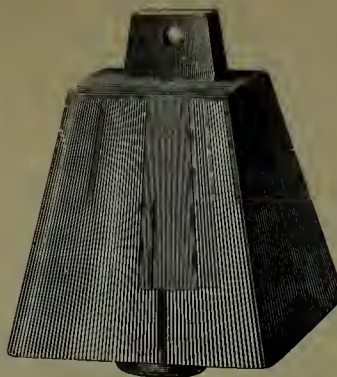
Nos.	0	1	2	3
Height (without Loop),	7	6½	5¼	4½ Inch.
Per Dozen, \$	13 00	11 00	8 00	6 00

Nos.	4	5	6	7
Height (without Loop),	4	3½	2½	2¼ Inch.
Per Dozen, \$	5 00	4 00	3 00	2 50

## Cast Sheep Bells.

161



Full Size Cut of No. 2.

### Loose.

Nos.	1	2	3
Per Dozen, \$	2 00	2 50	3 00

### Strapped with Leather Straps.

Nos.	1	2	3
Per Dozen, \$	3 00	3 50	4 00

## Celebrated Swiss Cow Bells.

(SAIGNELECIE)



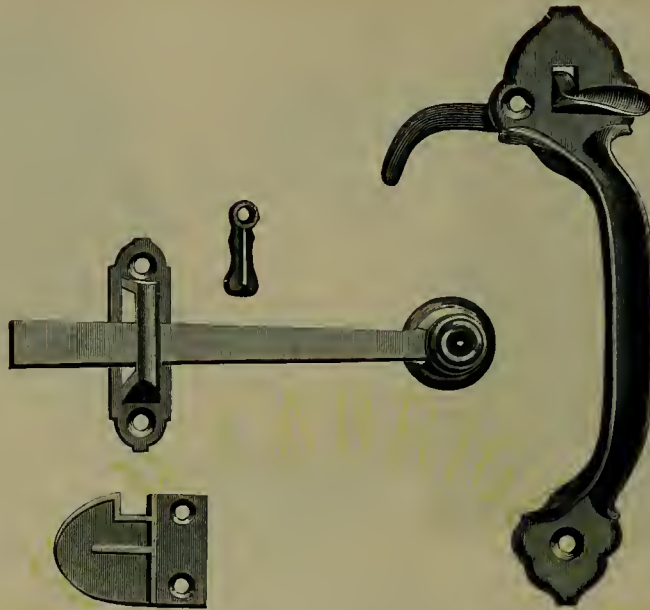
Fine in Tone. Pretty in Finish. Weight about 3 lbs.

5½ Inch High, 6 Inch at Mouth

Per Dozen, \$30 00

The Loop will admit of a 3 Inch Strap.

## Door Handles.



Half Size Cut of No. 2.

Japanned.

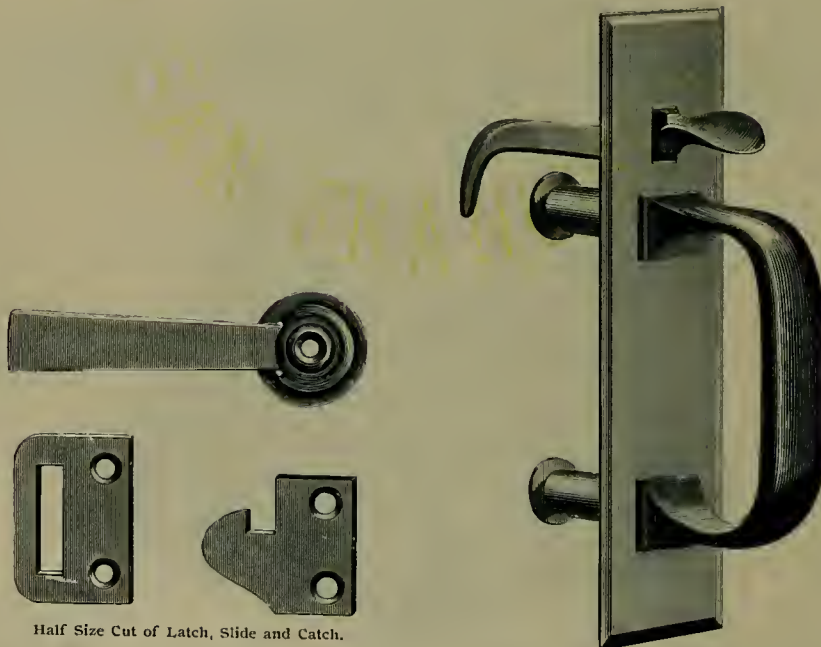
No. 2. With Wrought Latch

No. 3. " " "

Per Dozen, \$1 18

" " 1 35

## Store Door Handles.



Half Size Cut of Latch, Slide and Catch.

EITHER RIGHT OR LEFT HAND.

Japanned.

No. 6. Put on with Nuts . . . . .

Per Dozen, \$4 50



Nos. 17 and 18. Patented.

With Plate.



No. 27. Patented.

Without Plate.



Latch, etc., with Nos. 17, 18 and 27. Half Size Cuts.

EITHER RIGHT OR LEFT HAND.

Berlin Bronzed.

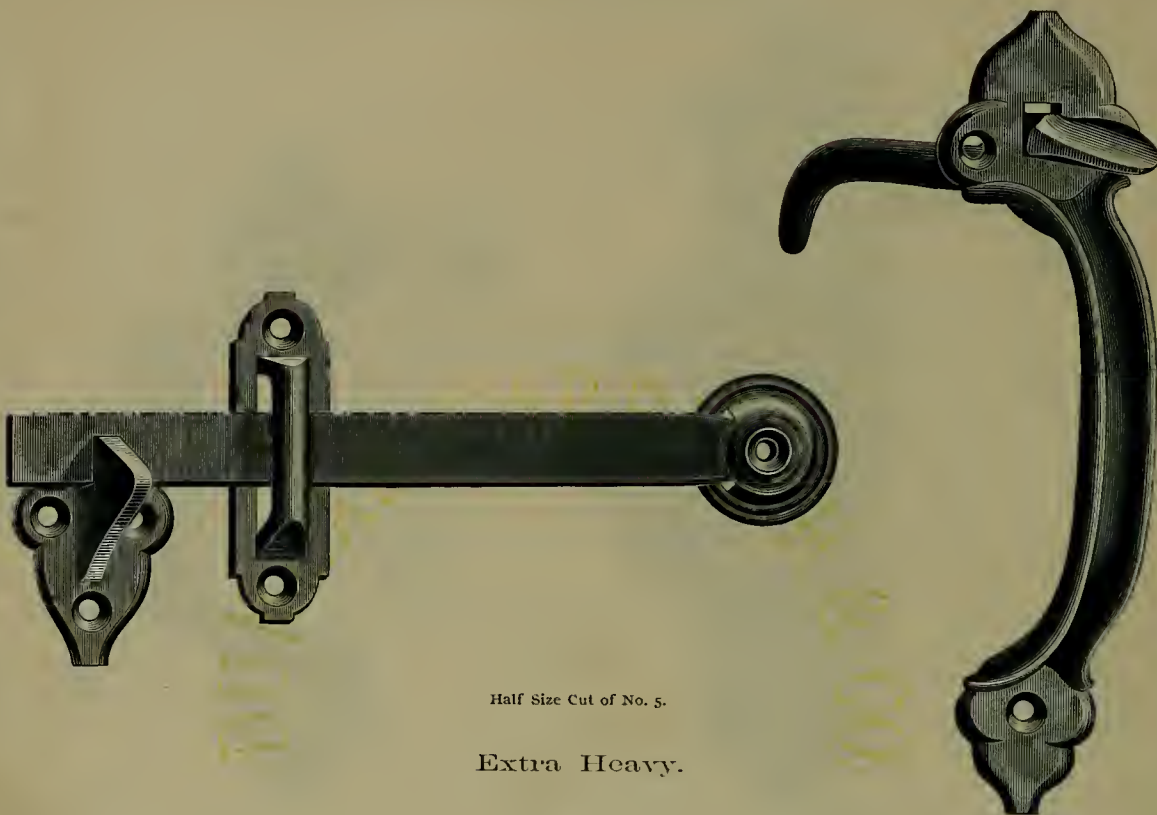
No. 17.	With Plate, Packed with Screws	Per Dozen, \$5 50
No. 27.	Without Plate, " " "	" " 4 65

Tuscan Bronzed.

No. 18.	With Plate, Packed with Screws	Per Dozen, \$4 50
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## Barn Door Handles.



Half Size Cut of No. 5.

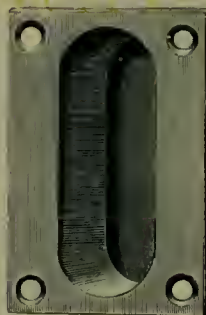
Extra Heavy.

Japanned.

No. 5. With Wrought Latch

Per Dozen, \$3 50

## Flush Barn Door Pulls.



Half Size Cut.

Japanned.

No. 500

Per Dozen, \$1 00

# Door Pulls.

165



No. 512.

Berlin Bronzed.



No. 505.

Tuscan Bronzed.



No. 520.

Cast Brass.

No. 512. With Screws Per Doz., \$1 15 | No. 505. With Screws Per Doz., \$1 25 | No. 520. Without Screws Per Doz., \$3 50

## Flush Trap Door Pulls.



No. 2. Japanned

Per Dozen, \$2 50



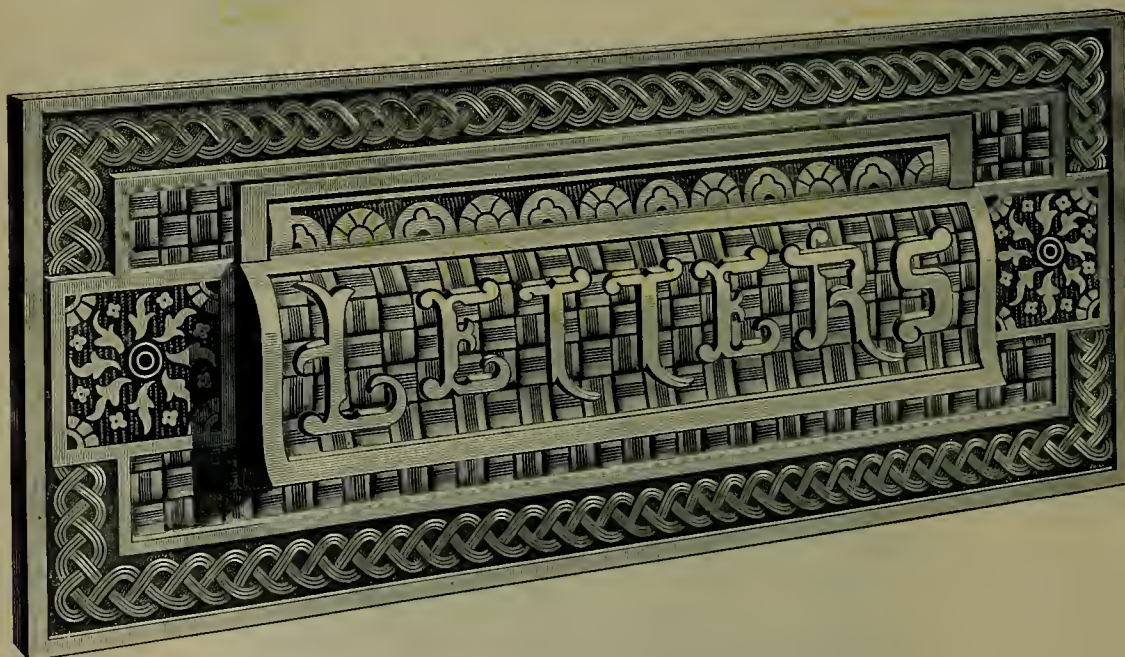
## Letter Box Plates.



No. 920.

Ornamental Bronze.

No. 920.	Size, $3\frac{1}{4} \times 7\frac{1}{4}$ Inches, Complete with Rods and Nuts	Per Dozen, \$10 00
No. 925.	" 3 x 7 " Similar to No. 920, with Bronze Screws	" " 7 20



No. 7840.

Ornamental Bronze.

No. 7840.	Size, $3\frac{1}{4} \times 7\frac{1}{4}$ Inches, Complete with Rods and Nuts	Per Dozen, \$16 00
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## Letter Box Plates.



Three-quarter Size Cut. Patented.

Berlin Bronzed.

No. 26. Packed with Screws

Per Dozen, \$4 20



Three-quarter Size Cut. Patented.

Berlin Bronzed.

No. 46. Packed with Berlin Bronzed Machine Screws

Per Dozen, \$5 50

One-sixth Dozen in a Box.

## Hallway Letter Boxes.



These Boxes are intended for use in Hallways of Office Buildings, Apartment Houses, etc., and are coming into very general use in cities where the carrier system has been adopted.

The Box is very strong, being made of iron, cast in one piece. Security is guaranteed also by the use of a Yale Lock with Corrugated Key. The flap at top can be raised, and through the opening thus exposed letters may be dropped into the Box. The grating at bottom enables any one to see at a glance, without opening his box, whether it contains any mail or not. The attachment of the Box to the wall is very simple, secure and easy.

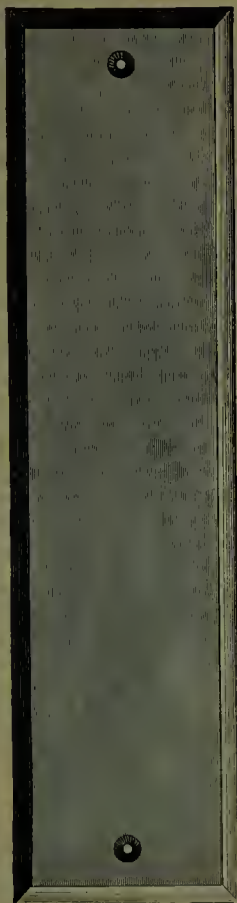
Iron. Japanned Finish.

No. 2.	Size, 3 In. Deep, 7 In. Wide, 11 In. High, with 3 Keys	Each, \$3 00
No. 3.	" 2 " " 5 " " 8 " " 3 "	" 2 50

## Finger Plates.

Silvered Glass.

Ornamental Bronze.



Plain Surface.

Word :  
Push or Pull.No. 905.  
Scroll Surface.No. 906.  
Push or Pull.

## Silvered Glass.

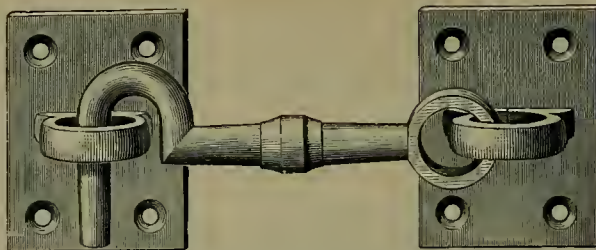
Size, 12 x 3 Inch, Plain Surface	Each, \$1 50
" 12 x 3 " Word : Push or Pull	" 2 00

## Ornamental Bronze.

No. 905. Size, 12 x 3 Inch, Scroll Surface	Each, \$1 30
No. 906. " 12 x 3 " Word : Push or Pull	" 1 30



## Ship Cabin Door Hooks.



Full Size Cut of 2½ Inch.

Heavy Cast Brass. Polished and Lacquered.

No. 75.

Inch, 3  
Per Dozen, \$5 00

3½  
5 75

4  
6 60

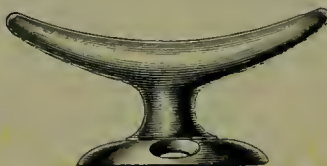
## Locker Rings.



Brass. Polished.

2¼ Inch . . . . . Per Dozen, \$2 50 | 2½ Inch . . . . . Per Dozen, \$3 00

## Line Cleats.

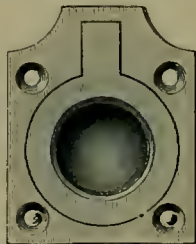


Full Size Cut of No. 21.

Cast Brass. Polished and Lacquered.

No. 21 . . . . . Per Dozen, \$3 25 | No. 22. Heavy . . . . . Per Dozen, \$4 25

## Flush Rings.



Full Size Cut of No. 20. 1¼ Inch.

Cast Brass. Polished and Lacquered.

No. 20.

Inch, 1  
Per Dozen, \$2 00

1¼  
2 20

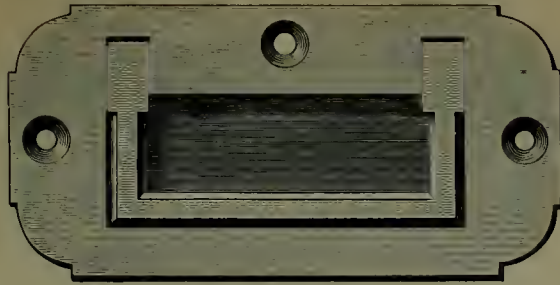
1½  
2 65

1¾  
2 85

1½  
3 10

## Flush Drawer Handles.

171



Full Size Cut of No. 44.

Cast Brass. Polished and Lacquered.

[illegible]

## Brass Lifting Handles.

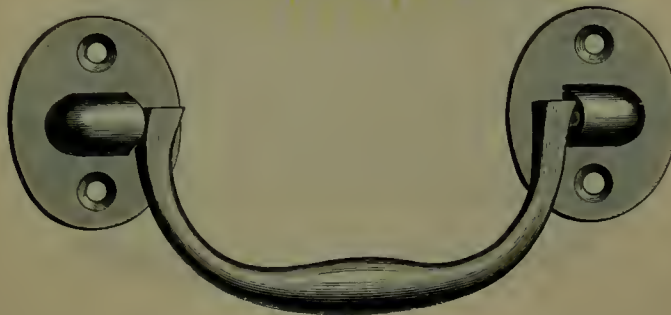


Full Size Cut of 2½ Inch.

Cast Brass. Polished and Lacquered.

	No. 2.	
Inch, 2½	3	3½
Per Dozen Pairs, \$4 00	5 00	6 50

## Brass Lifting Handles.

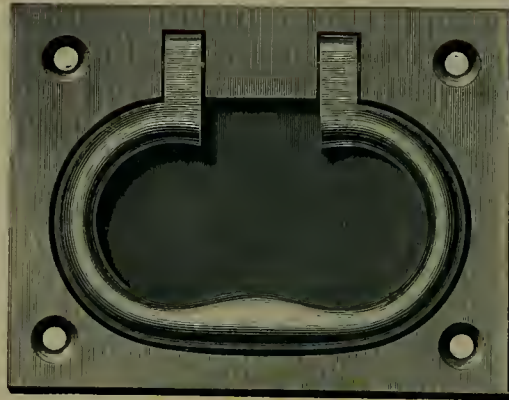


Full Size Cut of 2½ Inch.

Heavy, Cast Brass. Polished and Lacquered.

	No. 1.	
Inch, 3	3 1/2	4
Per Dozen Pairs, \$7 50	9 60	13 50

## Flush Chest Handles.



Full Size Cut of No. 31.

Japanned.

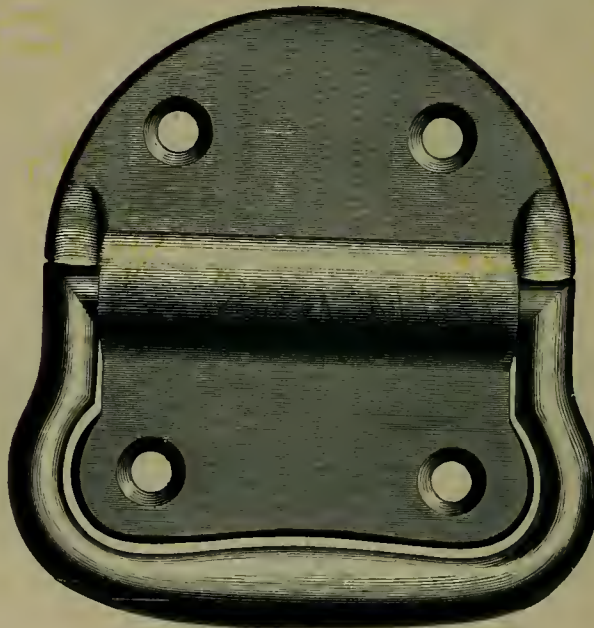
Nos. 31  
Per Dozen Pairs, \$2 80

32  
3 60

33  
6 50

34  
7 50

## Chest Handles.



Full Size Cut of No. 11.

Japanned.

Nos. 10  
Per Dozen Pairs, \$1 75

11  
2 50

12  
3 65

13  
5 10



# Wrought Chest Handles.

173



Japanned.

Nos. 72

73

74

Per Dozen Pairs, \$3 00

3 35

3 75

## Fancy Chest Handles.



Full Size Cut of No. 21.

Berlin Bronzed.

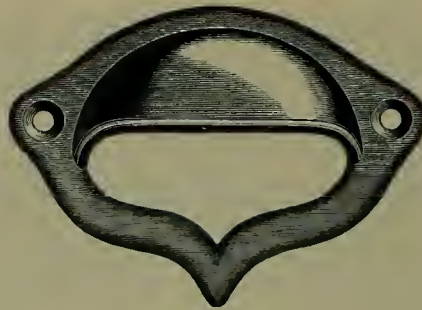
No. 21. With Screws . . . . .

Per Dozen Pairs, \$4 20

No. 22. " " . . . . .

" " " 5 60

# Drawer Pulls.



Full Size Cut of Nos. 100 and 101.

Japanned.

Copper Bronzed.

No. 100

Per Gross, \$2 88

No. 101

Per Gross, \$4 30



Full Size Cut of Nos. 110 and 110½.

Japanned.

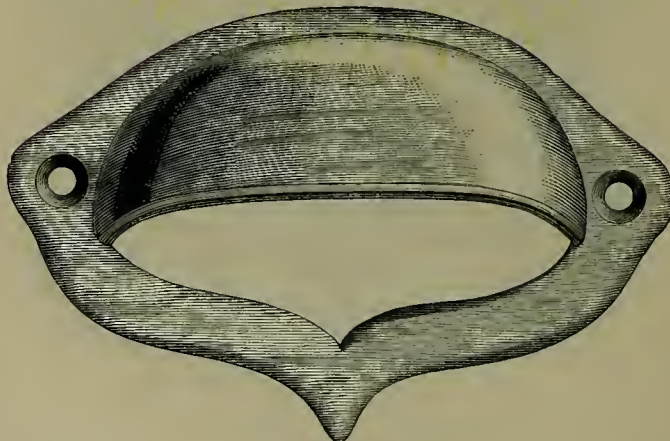
Coppered.

No. 110

Per Gross, \$4 50

No. 110½

Per Gross, \$4 50



Full Size Cut of Nos. 10 and 11.

Japanned.

Copper Bronzed.

No. 10

Per Gross, \$5 00

No. 11

Per Gross, \$6 75

# Drawer Pulls.

175



Full Size Cut of Nos. 501 and 506. Patented.

PACKED WITH SCREWS.

Copper Bronzed.

Berlin Bronzed.

No. 501	Per Gross, \$8 75		No. 506	Per Gross, \$8 75
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Full Size Cut of Nos. 401 and 406. Patented.

PACKED WITH SCREWS.

Copper Bronzed.

Berlin Bronzed.

No. 401	Per Gross, \$11 50		No. 406	Per Gross, \$11 50
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Full Size Cut of Nos. 301 and 306. Patented.

PACKED WITH SCREWS.

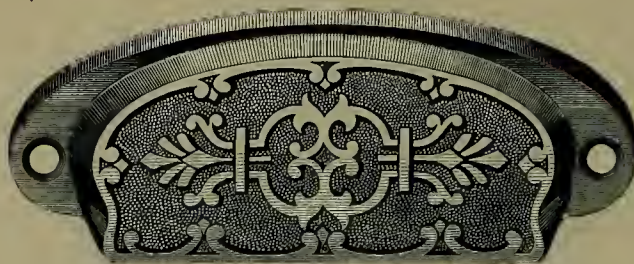
Copper Bronzed.

Berlin Bronzed.

No. 301	Per Gross, \$13 25		No. 306	Per Gross, \$13 25
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## Drawer Pulls.



Cut of Nos. 356 and 456.

Berlin Bronzed.

Large.

No. 356. With Screws

Per Gross, \$10 00

No. 456. With Screws

Medium.

Per Gross, \$9 00



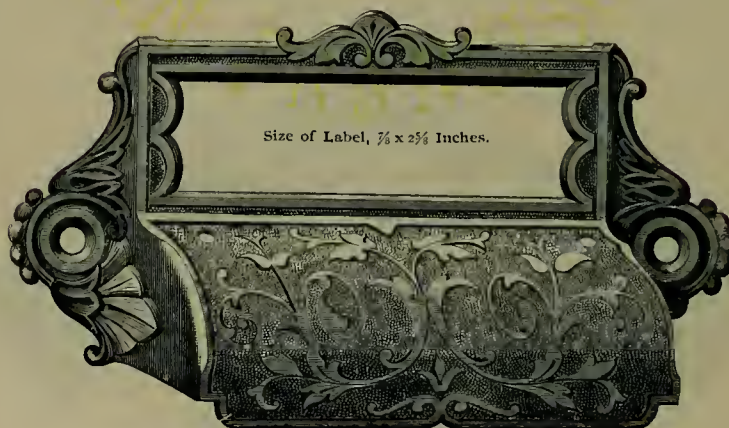
Full Size Cut of No. 396. Patented.

Berlin Bronzed.

No. 396. With Screws

Per Gross, \$11 00

## Druggists' Drawer Pulls.



Size of Label,  $\frac{7}{8} \times 2\frac{5}{8}$  Inches.

Full Size Cut of No. 346. Berlin Bronzed.

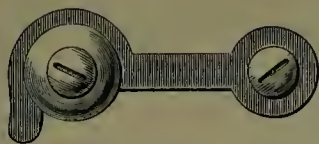
Labels can be slid in at the top after the Pulls are screwed on.

Berlin Bronzed.

No. 346. With Screws

Per Gross, \$13 25

## Shutter Bars.

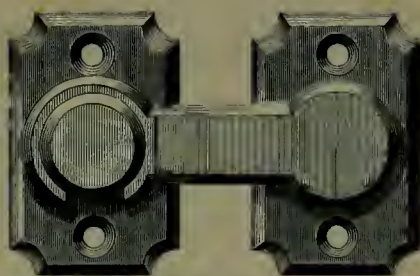
Nos. 31 and 33. Full Size Cut of  $1\frac{1}{4}$  Inch.SIZE,  $1\frac{3}{4}$  INCH.

Wrought Brass.

Nickel-Plated on Brass.

No. 31. With Brass Screws . . . Per Dozen, \$1 75

No. 33. With Nickel-Plated Brass Screws, Per Dozen, \$2 30

Nos. 71 and 73. Full Size Cut of  $2\frac{1}{2}$  Inch.

BEVELED EDGES.

No. 71. Cast Brass.

No. 73. Nickel-Plated on Cast Brass

 $1\frac{1}{4}$  Inch, Without Screws . . . Per Dozen, \$2 50 $1\frac{1}{4}$  Inch, With Nickel-Plated Brass Screws, Per Dozen, \$6 40

2 " " " " " " 2 70

2 " " " " " " " " 6 80

No. 137. Full Size Cut of  $2\frac{1}{2}$  Inch. Patented.

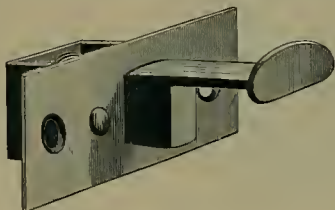
Tuscan Bronzed.

No. 137. 2 Inch, with Screws

Per Dozen, \$1 00

## Spiral Spring Window Springs.

"MERRIMAN'S" PATTERN.

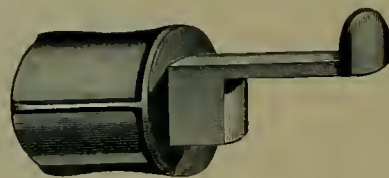


Full Size Cut of Nos. 5, 6, 8 and 16.

Wrought Brass.

No. 5. With Cast Brass Bolt, Polished, Per Gross, \$18 50

SELF-FASTENING, DRIVE SOCKET.



Full Size Cut of Nos. 7 and 9.

To FIT  $\frac{3}{4}$  INCH HOLE. NO SCREWS USED.

No. 7. Iron Case, Cast Brass Bolt . Per Gross, \$12 00

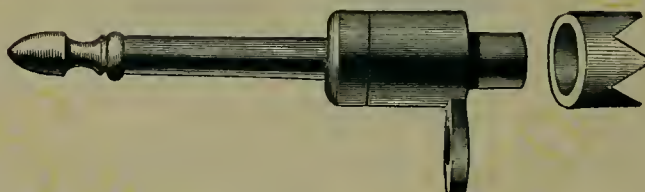
## Window Spring Bolts.



Full Size Cut of Nos. 10 and 20.

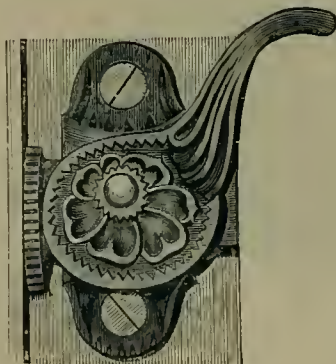
No. 10. Japanned . . . . .	Per Gross, \$2 90		No. 20. Japanned, Silvered Tip . . . . .	Per Gross, \$3 80
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## Patent Sash Bolts.



No. 305. Round Bolt, Maroon, with Flange on Socket . . . . .	Per Gross, \$4 75
Sockets, per Gross, \$0 46	

"Garretson's" Window Locks.



Coppered . . . . .	Per Gross, \$ 7 50
Nickel-Plated . . . . .	" " 15 00

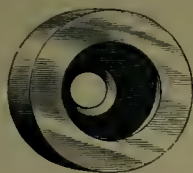
Automatic Window Holders.



No. 100. Bronzed . . . . .	Per Gross, \$ 8 00
No. 105. Tinned . . . . .	" " 10 00



## Sash Pull Plates.



Full Size Cut of No. 400.



Full Size Cut of No. 832.

Berlin Bronzed.

No. 400. With Screws

Per Dozen, \$0 55

Solid Bronze.

No. 832. With Screws

Per Dozen, \$1 00

## Sash Pulls.



Full Size Cut of Nos. 80 and 81.

SOCKET.

Tuscan Bronzed.

No. 80. With Screws

Per Dozen, \$1 70

Berlin Bronzed.

No. 81. With Screws

Per Dozen, \$2 00



Full Size Cut of No. 833.

SOCKET.

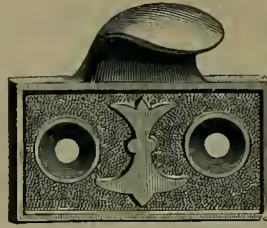
Solid Bronze.

EXTRA HEAVY.

No. 833. With Screws

Per Dozen, \$6 00

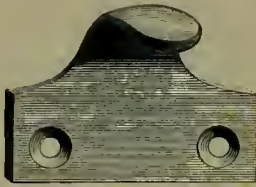
## Surface Sash Lifts.



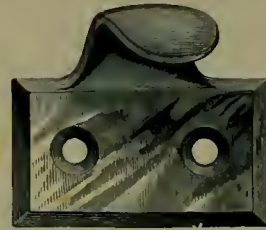
Full Size Cut of No. 231. Patented.  
Tuscan Bronzed.

No. 231. With Screws

Per Dozen, \$0 45



Full Size Cut of Nos. 532 and 732.



Full Size Cut of Nos. 533 and 733.

Cast Brass.

No. 532. Without Screws

Per Dozen, \$1 60

No. 533. Without Screws

Per Dozen, \$2 25

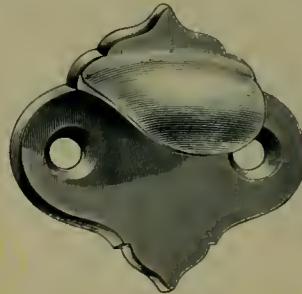
Nickel-Plated.

No. 732. With Screws

Per Dozen, \$3 25

No. 733. With Screws

Per Dozen, \$3 80



Full Size Cut of No. 523.

Cast Brass.

No. 523. Polished and Lacquered

Per Dozen, \$3 20

## Surface Sash Lift and Lock.



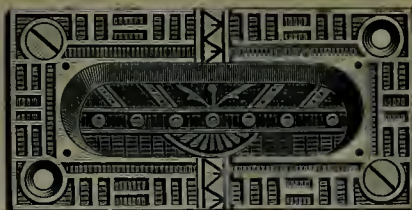
Full Size Cut of No. 462.

Berlin Bronzed.

No. 462. With Screws

Per Dozen, \$1 60

## Flush Sash Lifts.

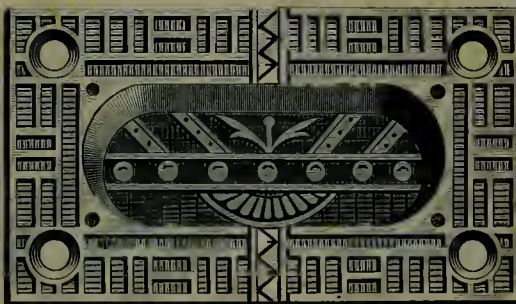


Full Size Cut of No. 1286.

Tuscan Bronzed.

No. 1286. With Screws

Per Dozen, \$0 90



Full Size Cut of No. 1287.

Tuscan Bronzed.

No. 1287. With Screws

Per Dozen, \$1 00



Full Size Cut of No. 491. Patented.

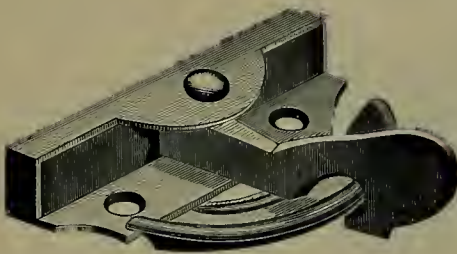
Berlin Bronzed.

No. 491. With Screws

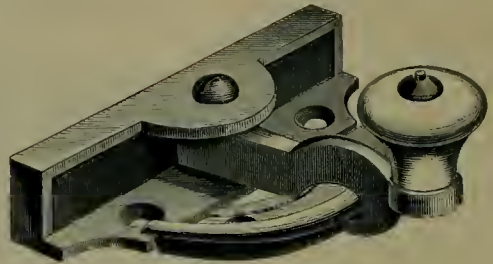
Per Dozen, \$1 10



## Sash Fasteners.



Cut of No. 9.



Full Size Cut of Nos. 211 and 214.

## PLAIN LEVER.

## Japanned.

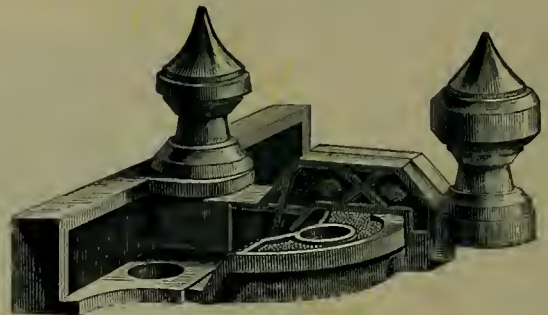
No. 0.	Plain Rivet	Per Dozen, \$0 66
No. 214.	Porcelain Knob, Capped Screws	" " 1 45

## Berlin Bronzed.

No. 211.	Porcelain Knob, Round Head Screws	Per Dozen, \$1 75
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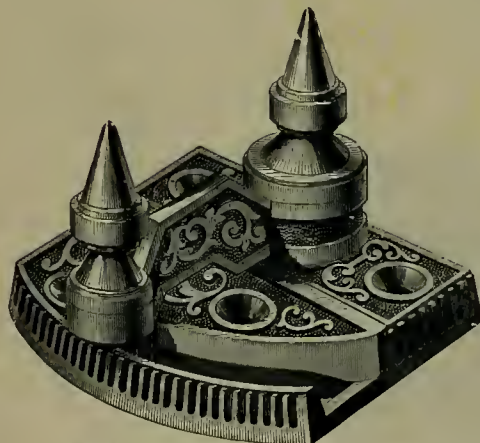
Full Size Cut of No. 41. Patented.



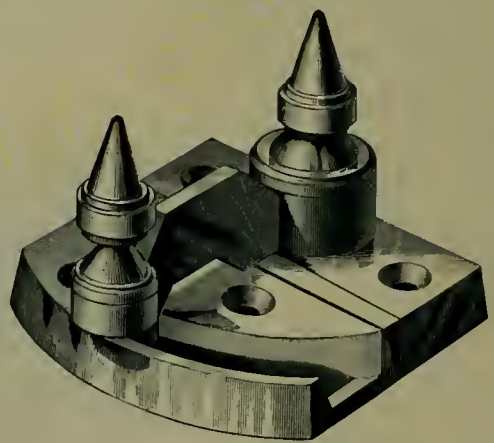
Full Size Cut of No. 208.

## Berlin Bronzed.

No. 41.	Porcelain Knob, with Screws, Per Dozen, \$1 90	No. 208.	Bronze Metal Knob and Rivet, with Screws.
			Per Dozen, \$5 00



Full Size Cut of Nos. 322 and 323. Patented.



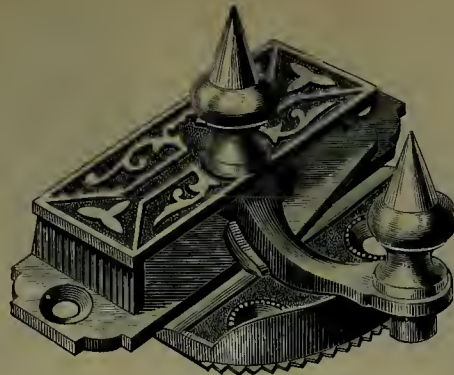
Full Size Cut of No. 366. Patented.

## Berlin Bronzed.

No. 322.	Bronze Metal Knob and Rivet, with Screws	Per Dozen, \$6 00
No. 323.	Nickel-Plated " " " " " "	" " 7 00

## Nickel-Plated.

No. 366.	Plain Pattern, with Screws	Per Dozen, \$23 30
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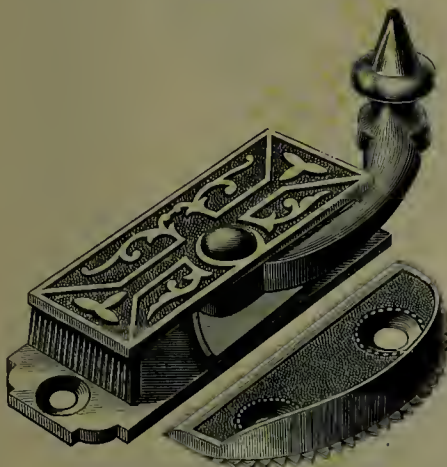


Full Size Cut of Nos. 522 and 523. Patented.

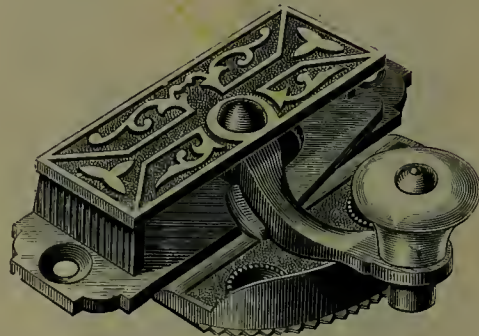
## Berlin Bronzed.

No. 522. Bronzed Metal Knob and Rivet, with Screws.  
Per Dozen, \$4 25

No. 523. Nickel-Plated Knob and Rivet, with Screws.  
Per Dozen, \$6 00



Full Size Cut of No. 520 Patented.  
OPEN.



Full Size Cut of No. 521. Patented.  
CLOSED.

## Berlin Bronzed.

No. 520. Iron Knob, with Screws

Per Dozen, \$1 80

No. 521. Porcelain Knob, with Screws, Per Dozen, \$2 25

## "Ive's" Patent Burglar Proof Sash Locks.



## Ornamental Iron.

No. 404. Bronzed

Per Dozen, \$1 25

No. 405. Coppered, Polished Knob

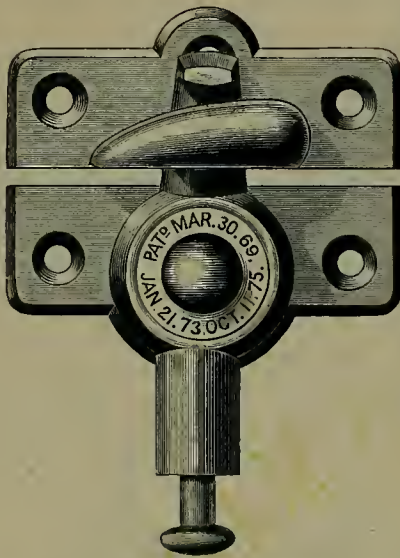
" " 1 75

No. 408. Bronzed, with Nickel-Plated Knob, Per Dozen, \$2 00

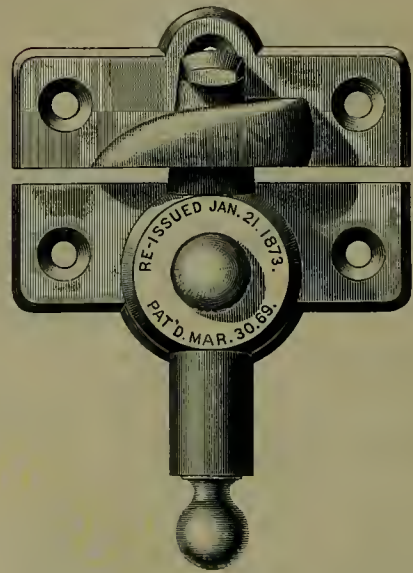
No. 416. " " Bronze Metal " " " 2 00



## Burglar Proof Sash Fasteners.



Nos. 5 and 29.



Nos. 10, 15, 30, 33, 35 and 73.



Nos. 25, 27 and 40.



No. 55.

### Self-Bolting.

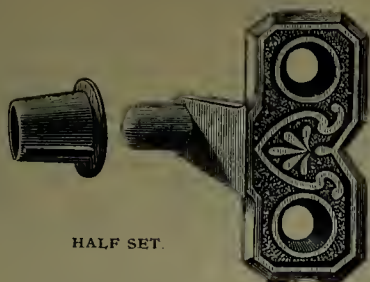
No.	Description	Per Dozen, \$
5.	Laequered Iron, Wrought Iron Pin and Rivet . . . . .	1 45
10.	Japanned Iron, Brass Cap and Knob . . . . .	1 85
15.	Japanned Iron, Plated Cap and Knob . . . . .	1 85
25.	Bronzed Iron, Ornamental, Plain Plated Cap and Knob . . . . .	2 00
27.	Bronzed Iron, Ornamental, Bronze Cap and Knob . . . . .	2 00
29.	Nickel-Plated on Iron, Plain . . . . .	6 00
30.	All Brass, Heavy . . . . .	5 35
33.	Nickel-Plated on Brass, Heavy . . . . .	8 00
35.	Silver-Plated on Brass, Heavy . . . . .	11 35
40.	Ornamental Bronze, Heavy . . . . .	6 00
55.	Ornamental Bronze, Extra Heavy . . . . .	7 35
73.	Plain Bronze, Heavy . . . . .	6 00

All the above packed with Screws.



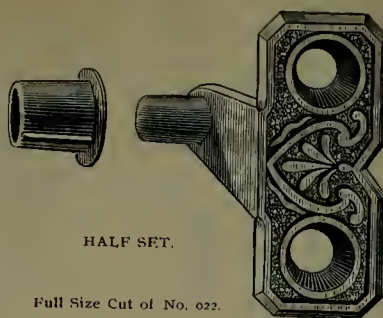
# Patent Surface Sash Centres.

185



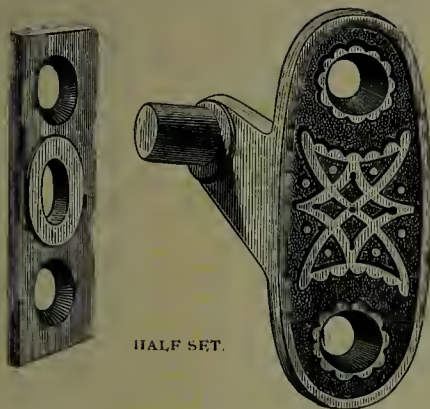
HALF SET.

Full Size Cut of No. 011.



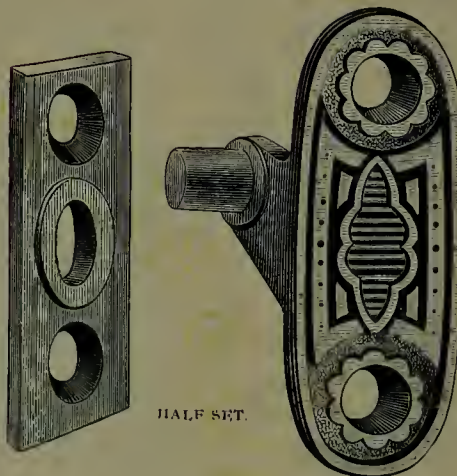
HALF SET.

Full Size Cut of No. 022.



HALF SET.

Full Size Cut of No. 033.



HALF SET.

Full Size Cut of No. 044.

Bronzed Iron.

Nos. **011**  
Per Dozen Sets, \$0 65

**022**  
0 80

**033**  
1 25

**044**  
2 00

## Japanned Sash Centres.



Full Size Cut of No. 22.



Full Size Cut of No. 2.

No. **22**

Per Gross, \$5 00

No. **2.** Heavy, 3/16 Inch Stem . . . Per Gross, \$6 75  
No. **4.** " 3/8 " " " " " 7 20

# "Reiher's" Transom Lifters.

## SELF-LOCKING.



TRANSOM HINGED AT THE TOP.

To find the length of Lifter required:

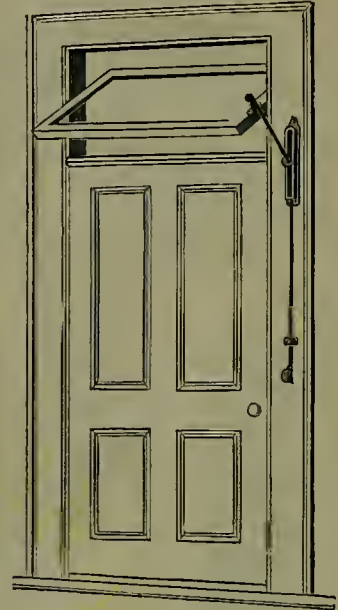
Measure from the floor to about the middle of transom, and deduct four feet.



TRANSOM HINGED AT THE BOTTOM.

To find the length of Rod required:

Measure from the floor to the top of transom, and deduct five feet.



TRANSOM HINGED ON PIVOTS.

To open "push up" the Rod.

To find the length of Lifter required: Measure from the floor to the middle of the transom, and deduct four feet.

## TO THE ARCHITECTS.

Please specify the *diameter* of Lifter and *length* desired.

Transoms hinged below require a longer rod than those hinged above.

To ascertain the exact length of Lifters required for differently hinged transoms, a rule for measurement is given below each cut.

Brackets supplied in accordance with mouldings, otherwise the regular size will be furnished.

All the Lifters are reversible (either right or left), and *without extra charge*.

The length of the Lifter is to be measured when the rod is drawn out of the Locking Bar to the lower notch.

## Improved. New Pattern.

### PRICE LIST.

### Fine Copper Finish.

Length of Lifter, Feet,	3	4	5	6	7	8	9	10
Diameter of Rod.								
1/4 Inch.	Each, \$0 90	1 00	1 10	1 20	1 30	1 40		
5/16 "	" \$1 30	1 45	1 60	1 75	1 90	2 05		
3/8 "	" \$1 70	1 90	2 10	2 30	2 50	2 70	2 90	3 10

### Brass or Real Bronze.

Length of Lifter, Feet,	3	4	5	6	7	8	9	10
Diameter of Rod.								
1/4 Inch.	Each, \$2 80	3 10	3 40	3 70	4 00			
5/16 "	" \$3 20	3 55	3 90	4 25	4 60	4 95		
3/8 "	" \$3 65	4 10	4 55	5 05	5 45	6 90		

1/4 Inch Rod for Hotels and Dwellings. 5/16 for Offices and Medium Transoms. 3/8 for Large Store Transoms.

## SELF-LOCKING SKYLIGHT LIFTER.

TO BE WORKED WITH A CORD.

Price . . . . . Each, \$1 75

## Ventilators.

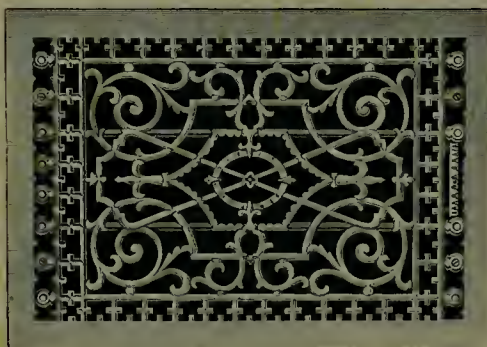
ROUND, WHITE JAPANNED.



Vertical Wheel, for Cords.

Inch, 6	8	10	12
Price, Each, \$1 45	1 95	2 87	3 73

OBLONG, WHITE JAPANNED.



Vertical Wheel, all Fitted for Cords.

Size of Opening, 4x6	4x8	4x10	4x15	6x8	6x10	8x10	8x12	9x14	10x14	10x16	12x18	16x24
Price, Each, \$1 40	1 60	1 75	2 40	2 00	2 20	2 62	2 92	3 72	4 40	4 90	7 15	13 25

## Cast Face Plates.

FOR BRICK WORK, Etc.

Outside Measure, 6x8	6x10	8x10	8x12	10x12	10x14	12x16
Price, per Dozen, \$2 50	3 00	4 00	4 50	5 75	7 50	11 00

## Door Buttons.



Full Size Cut of 1½ Inch.

No. 10. Japanned.

Inch, 1½	1¾	2	2¼
Per Gross, \$1 00	1 20	1 50	2 20

## Door Buttons on Plates.



Full Size Cut of 1½ Inch.

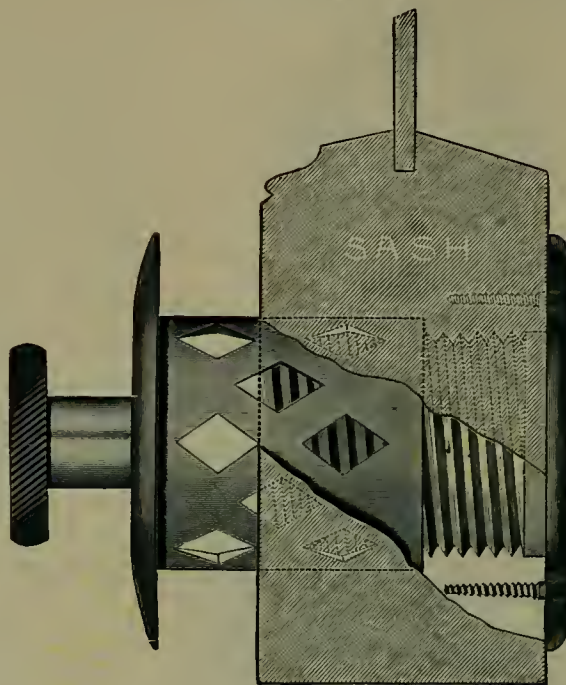
No. 20. Japanned.

Inch, 1½	1¾	2	2¼
Per Gross, \$3 65	4 20	4 75	6 30



## Diamond Ventilators.

Patented Jan. 8. 1884.



Position in Wall or Sash, Partially Open.

PERFECT VENTILATION GUARANTEED WITHOUT DRAUGHTS.

— FOR —

## Buildings, Hotels, Hospitals, Schools, Churches, Dwellings, Lodges, Etc.

PASSENGER, SLEEPING, EXPRESS, REFRIGERATOR AND FREIGHT CARS.

*The admission of air being under perfect control, hang up a Thermometer and carry any temperature you wish.*

THE DIFFUSION OF IN-CURRENT DESTROYS ALL DRAUGHTS.

*For summer or winter Ventilation, close your house. Windows down and locked. Perfect circulation of air through every apartment. The Ventilators can be finished to correspond with any interior colors or decorations, either in nickel, bronze or paints.*

**BUILDINGS, ETC.**—For large buildings, basements, halls, churches, lodges, etc., use any size Ventilator desired either in walls or windows. Any quantity of exterior air can be admitted or shut off at will. Thus any desired temperature can be maintained in any apartment. In large buildings keep the windows closed. It admits constant supply of fresh air without draughts. *Tenants run no risk of cold, as when windows are raised or lowered, and landlords will save their cost every day in thus keeping windows closed—as against trying to heat all out doors, when windows are being opened either from above or below.*

**HOTELS, ETC.**—For Hotels, use in halls, bedrooms, bath rooms, etc. Any desired temperature can be held, and putting large sizes into partition walls, all odors from closets, etc., are carried into halls, instead of bedrooms, for inhalation. The halls are the natural Ventilators of hotels and large buildings, and carrying certain lines of Draught, do, when connected with a bedroom or closet, tend to produce a vacuum therein, thus removing odors, and purifying the apartments; the admission of fresh air at the windows and foul air going out as described, must purify the apartments.

**SCHOOLS, ETC.**—For schools or recitation rooms windows must not be raised or lowered on account of the dangerous effects of draughts. Under our system—owing to the diffusion of in-currents, or air admission—any person or child can sit within six inches of any Ventilator (wherever placed) without fear or risk of cold from draughts. A person blindfolded may be taken within six inches of any Ventilator in place. He will quickly notice the circulation of fresh air around him, but he cannot locate its admission, thus effectually overcoming the dangerous risk of direct draughts from the hoisting or lowering of windows, aside from having no control of air admission, and as before the expense of heating all out doors—under our system thus controlling air admissions, and the temperature, with the destruction of draughts, it would seemingly commend itself for the school room.

**HOSPITALS, ETC.**—The most delicate patient may lie with head toward air admission. He may feel the air circulating about him, which can be admitted in any quantity or shut off at will, but assumes no risk from direct draughts.

**OFFICES, ETC.**—For offices, sit within six inches of Ventilator if you wish and do your writing, you will not take any cold.

**BEDROOMS.**—For bedrooms open Ventilators upon retiring (if closed) to admit any desired volume for the night, close in the morning if room is too cold, open and close at will all times.

## PRICE LIST.

Numbers.	Per Dozen.	Numbers.	Per Dozen.
1. Opening 1½ In. Diam., any Length up to 2 In.,	\$12 00	5. Opening 5 In. Diam., any Length up to 6 In.,	\$60 00
2. " 2 " " " " " " 3 "	24 00	6. " 6 " " " " " " 7 "	72 00
3. " 3 " " " " " " 4 "	36 00	7. " 7 " " " " " " 8 "	84 00
4. " 4 " " " " " " 5 "	48 00	8. " 8 " " " " " " 9 "	96 00

## Plain and Fancy Shelf Brackets.



No. 44.



No. 152.



No. 164.

## No. 44. Japanned.

Inch, 3x4	4x5	5x6	6x8	8x10	8x12	9x15	10x12	12x14	12x18	13x20
Per Dozen, \$0 48	0 68	1 10	1 50	2 10	2 75	3 50	3 00	4 50	5 50	8 00

## No. 152. Tuscan Bronzed, with Screws.

Inch, 3x4	4x5	4½x6	5½x8	6x9	7x10	8x11	10x12
Per Dozen, \$1 35	1 65	2 25	2 50	3 15	3 90	4 50	6 30

## No. 164. Tuscan Bronzed, with Screws.

Inch, 3x4	4x5	5x7	6x8	7x9	8x10	9x12
Per Dozen, \$1 40	1 85	2 50	3 10	3 75	4 75	6 25

## Hand Rail Brackets.



Half Size Cut of No. 201.



Half Size Cut of No. 202.

## Tuscan Bronzed.

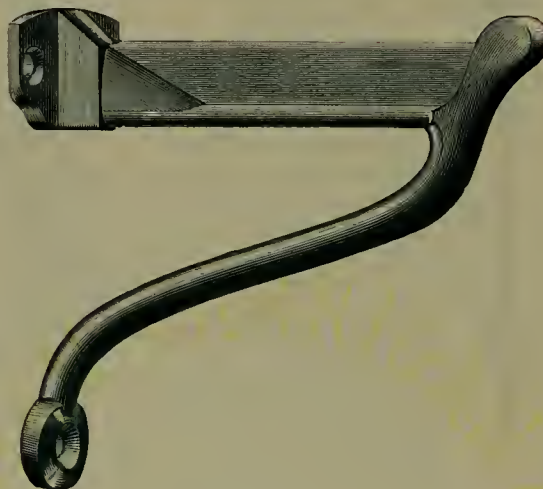
No. 201. With Screws

Per Dozen, \$2 00

No. 202. " "

" " 2 50

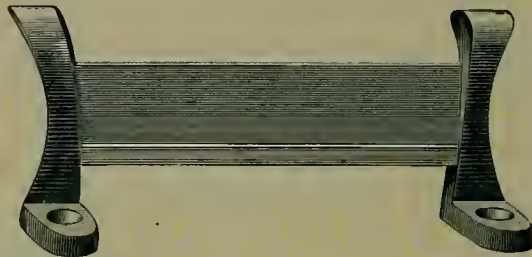
## Japaned Foot Scrapers.



Half Size Cut of No. 1.

No. 1. One Dozen in a Package . . . . .

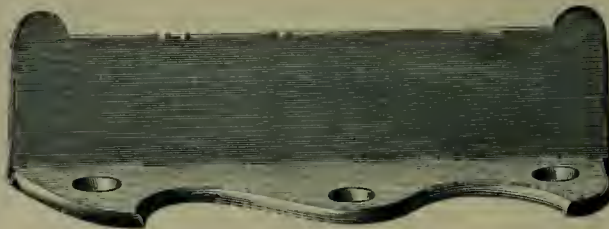
Per Dozen, \$1 45



Half Size Cut of No. 2.

No. 2. One Dozen in a Package . . . . .

Per Dozen, \$0 95



Nos. 3 and 4. Half Size Cut of No. 4.

No. 3. One Dozen in a Package . . . . .

Per Dozen, \$1 00

No. 4. " " " " . . . . .

" " 1 45



# Japanned Foot Scrapers.



Half Size Cut of No. 6.

No. 6. Half Dozen in a Package . . . . .

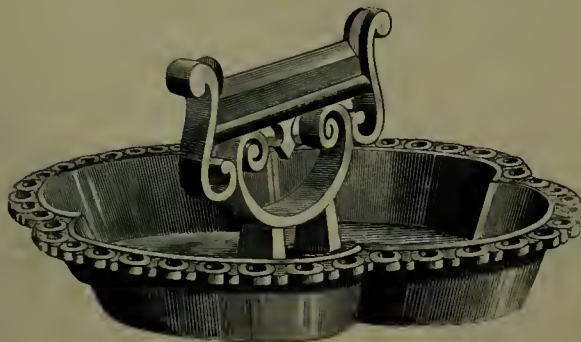
Per Dozen, \$1 90



Half Size Cut of No. 12.

No. 12. Half Dozen in a Package . . . . .

Per Dozen, \$3 50



One-third Size of Cut No. 20.

With Dish, Cast in One Piece.

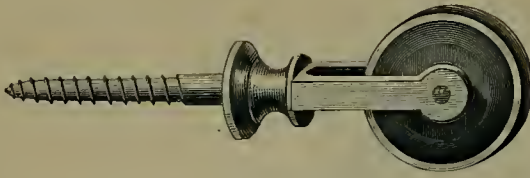
No. 20. Loose, not Packed . . . . .

Per Dozen, \$ 8 00

No. 25. Large, Loose, not Packed . . . . .

" " 20 00

## Brass Screw Pulleys.



No. 35. Full Size Cut of 1 Inch.

No. 37. Full Size Cut of  $\frac{3}{4}$  Inch.

CAST BRASS. POLISHED AND LACQUERED.

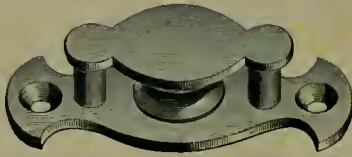
## No. 35. Single Pulleys.

Inch,  $\frac{1}{2}$   
Per Dozen, \$2 10 $\frac{5}{8}$   
2 35 $\frac{3}{4}$   
2 70 $\frac{7}{8}$   
3 151  
3 35 $1\frac{1}{4}$   
4 00

## No. 37. Double Pulleys.

Inch,  $\frac{1}{2}$   
Per Dozen, \$3 25 $\frac{5}{8}$   
3 60 $\frac{3}{4}$   
4 401  
5 25

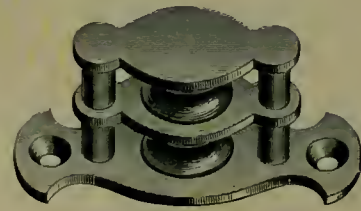
## Brass Side Pulleys.

No. 115. Full Size Cut of  $\frac{1}{2}$  Inch.

## No. 115. Single Wheel.

Inch,  $\frac{1}{2}$   
Per Dozen, \$2 30

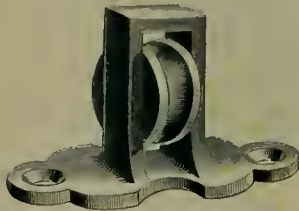
WROUGHT BRASS.

 $\frac{5}{8}$   
2 60No. 117. Full Size Cut of  $\frac{1}{2}$  Inch.

## No. 117. Double Wheel.

Inch,  $\frac{1}{2}$   
Per Dozen, \$3 40 $\frac{5}{8}$   
3 80

## Brass Upright Pulleys.

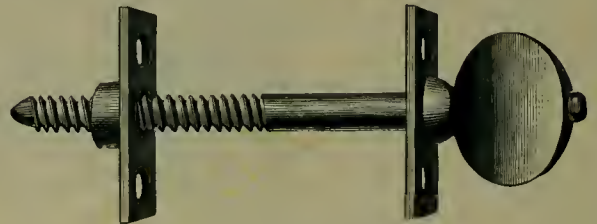


Full Size Cut of No. 50.

## No. 50. Cast Brass.

 $\frac{5}{8}$  Inch, Polished and Lacquered . Per Dozen, \$3 00

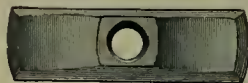
## Brass Looking Glass Screws.

Full Size Cut of  $2\frac{1}{2}$  Inches.

## No. 10.

Inch, 2  
Per Dozen, \$1 70 $2\frac{1}{4}$   
1 80 $2\frac{1}{2}$   
1 853  
2 20

## Brass Door Buttons.



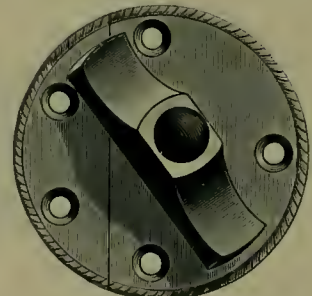
## No. 5.

Inch,  $1\frac{1}{4}$   
Per Gross, \$4 50 $1\frac{1}{2}$   
5 00 $1\frac{3}{4}$   
6 002  
6 50

CAST BRASS.

POLISHED AND LACQUERED.

## Brass Door Buttons on Plates.

No. 15. Full Size Cut of  $1\frac{1}{4}$  Inch.

## No. 15.

Inch,  $1\frac{1}{2}$   
Per Gross, \$13 75 $1\frac{3}{4}$   
15 502  
18 75





Japanned

## Incased Screw Pulleys.

No. 43.



Full Size Cut of 2 Inch.

Inch,	2	2½	3
Per Dozen, \$	1 75	2 25	3 00

Japanned

## Incased Swivel Pulleys.

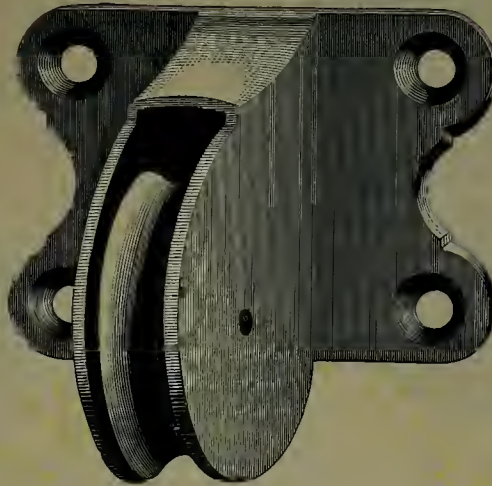
No. 42.



Full Size Cut of 2½ Inch.

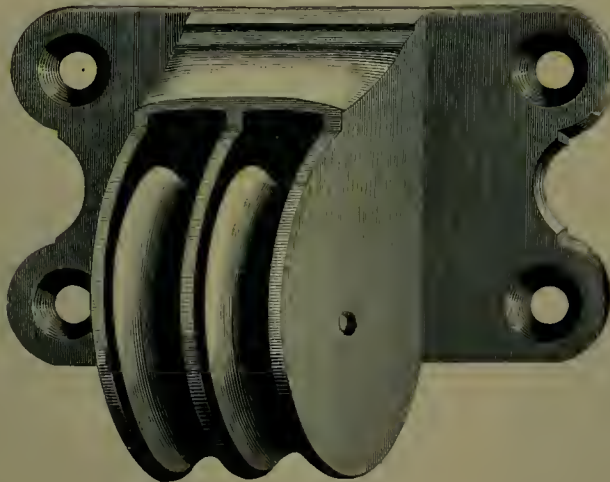
2½ Inch	.	.	.	.	.	Per Dozen, \$	2 50
3 "	.	.	.	.	.	" "	3 25

## Hot House Pulleys.

Full Size Cut of  $1\frac{3}{4}$  Inch.

## No. 85. Single Wheel. Japanned.

Inch, $1\frac{3}{4}$	2	$2\frac{1}{4}$	$2\frac{1}{2}$
Per Dozen, \$2 00	2 40	3 20	4 20

Full Size Cut of  $1\frac{3}{4}$  Inch.

## No. 87. Double Wheel. Japanned.

Inch, $1\frac{3}{4}$	2	$2\frac{1}{4}$	$2\frac{1}{2}$
Per Dozen, \$3 00	3 60	5 00	6 25



Full Size Cut of 2 Inch.

## Japanned Ceiling Pulleys.

No. 95.

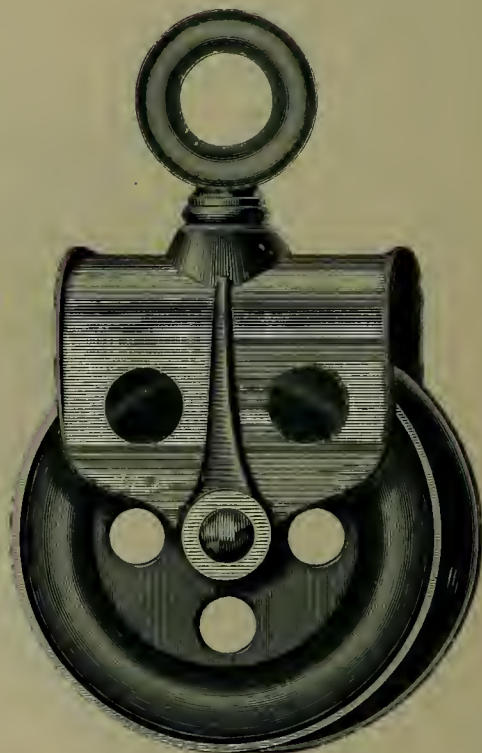
Inch,	1 $\frac{3}{4}$	2	2 $\frac{1}{2}$
Per Dozen, \$	1 25	1 65	2 40

## Japanned

## Hay Fork Pulleys.

No. 276.

Swivel Eye.



Half Size Cut of 6 Inch.

5 Inch	Per Dozen, \$	7 00
6 "	" "	12 00



# Awning Pulleys.

SINGLE.



No. 75. Full Size Cut of 2 Inch.

DOUBLE.



No. 77. Full Size Cut of 2 Inch.

JAPANNED.

## No. 75. Single Wheel.

Inch,	2	2½	3
Per Dozen, \$2 00	3 00	4 00	

## No. 77. Double Wheel.

Inch,	2	2½	3
Per Dozen, \$3 50	4 50	6 00	

# Tackle Blocks for Awnings.

SINGLE.



Nos. 74 and 174. Full Size Cut of 1½ Inch.

SINGLE BLOCKS.

## No. 74. Japanned.

Inch,	½	¾	¾	1	1¼	1½	2
Dozen, \$0 50	0 60	0 70	0 85	1 00	1 30	2 50	

## No. 174. Galvanized.

Inch,	½	¾	¾	1
Per Dozen, \$0 80	0 90	1 05	1 25	
Inch,	1¼	1½	1¾	2
Per Dozen, \$1 65	2 40	3 25	5 00	

DOUBLE BLOCKS.

## No. 176. Galvanized.

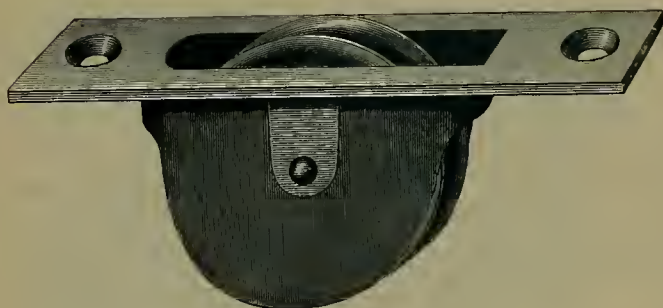
Inch,	¾	1	1¼	1½	1¾	2
Per Dozen, \$1 65	2 00	2 25	3 70	6 00	7 35	

DOUBLE.



No. 176. Full Size Cut of 1½ Inch.

## Window Pulleys.



## LIGHT PIN PULLEYS.

1 3/4 Inch Wheel	.	.	.	Per Gross, \$3 60
2 " "	.	.	.	" " 4 80

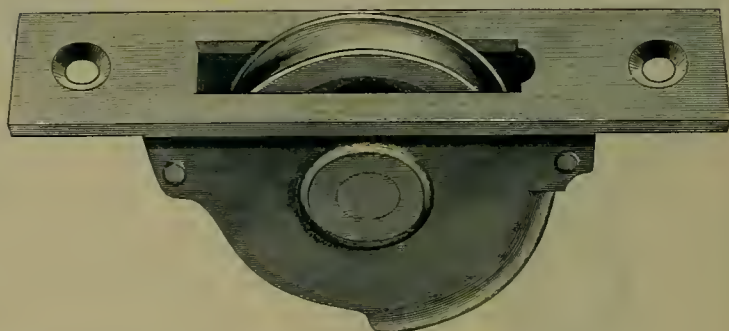
Packed in Bulk.

## "PACIFIC"

## AXLE PULLEYS.

1 3/4 Inch Wheel	.	Per Dozen, \$0 50
2 " "	.	" " 0 62 1/2
2 1/4 " "	.	" " 0 75

Packed one dozen in a Package.



## No. 8.

## AXLE PULLEYS.

RIVETED WIRE AXLE.

Polished Wheel. Painted Face.

1 3/4 Inch Wheel	.	Per Dozen, \$0 58
2 " "	.	" " 0 66

Packed in Bulk.



## No. 00.

## AXLE PULLEYS.

MILLED AXLE.

All Iron.

1 3/4 Inch Wheel	.	Per Dozen, \$0 80
2 " "	.	" " 1 00
2 1/4 " "	.	" " 1 20

Brass Face and Wheel.

2 Inch Wheel	.	Per Dozen, \$5 00
2 1/4 " "	.	" " 6 00

Packed one dozen in a Package.



# Window Pulleys.

## "EMPIRE" SASH PULLEY.



GREAT SAVING OF TIME AND MATERIAL.

These Pulleys can be fitted to the Window Frames at the rate of 60 per hour.

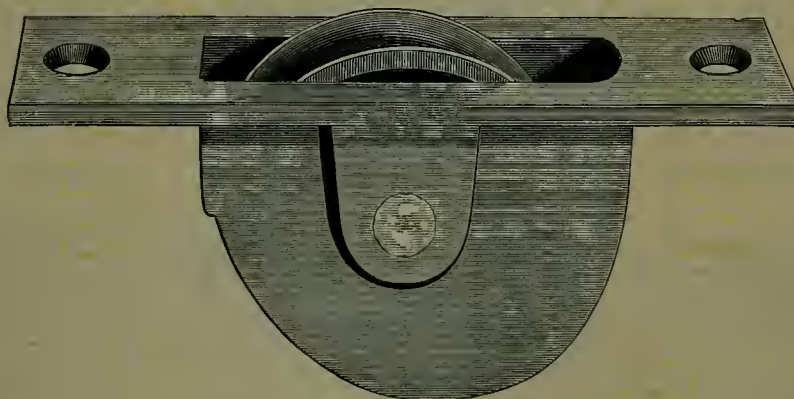
No chisels used. No screws required. It is held more firmly and makes a better finish than any other Pulley in the world.

Plain Face, Polished Wheel, 2 In., with 1/4 In. Steel Axles.

### PRICE.

In Bulk	Per Dozen, \$0 65	In Papers, one dozen each	Per Dozen, \$0 71
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## NOISELESS, HEAVY WROUGHT PIN AXLE PULLEYS.



Bronzed Face. Polished Turned Wheel.

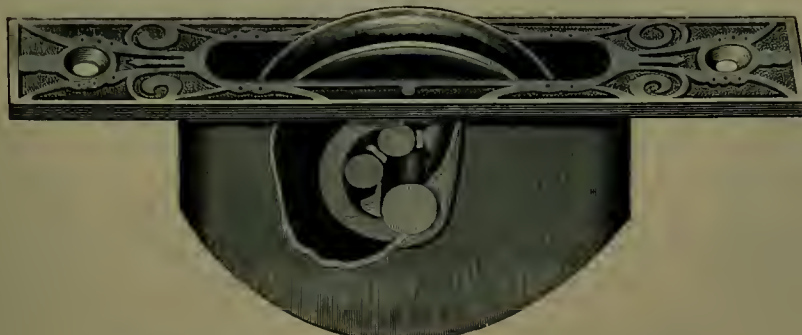
ROUND GROOVE.

No. 185.	2 1/2 Inch Wheel	Per Dozen, \$1 50
----------	------------------	-------------------

CHAIN GROOVE.

No. 192.	2 1/2 Inch Wheel	Per Dozen, \$2 00
No. 194.	3 " "	" " 3 00

## "PACIFIC" ANTI-FRICTION SASH PULLEYS.



Berlin Bronzed Finish. Ground Wheel.

ROUND GROOVE.

CHAIN GROOVE.

2 1/2 Inch Wheel	Per Dozen, \$3 50	2 1/2 Inch Wheel	Per Dozen, \$3 50
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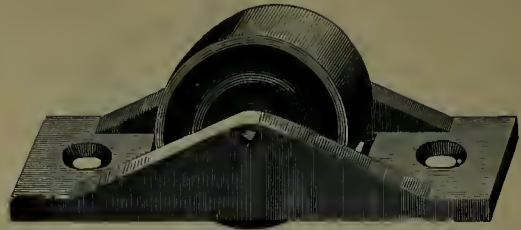
# Sash Rollers.

201



Full Size Cut of  $\frac{3}{8}$  Inch.

No. 10.



Full Size Cut of No. 1.

Japanned.

EXTRA HEAVY.

Inch,	$\frac{3}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$	Nos.	1	2	3
Per Gross, \$	3 15	3 75	5 50	7 50	10 00	Width of Plate,	1	$1\frac{1}{4}$	$1\frac{1}{2}$ Inch.
						Per Dozen, \$	1 00	1 50	2 20

## Sash Weights.

SOLID EYES.



All Weights

Per lb. —

## Well Wheels.

SWIVEL HOOKS.



Japanned.

Diam. Inches,	8	10	12	14
Per Dozen, \$	8 00	9 50	11 25	20 00

## Iron Sheaves for Blocks, Etc.

Plain Sheaves.

Base Price for 1 Inch and Less in Thickness 10 cts.

PRICE FOR

Inch,	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{4}$	$2\frac{1}{2}$
Cts.,	12 $\frac{1}{2}$	15	17 $\frac{1}{2}$	20	22 $\frac{1}{2}$	25

Steel Roller Sheaves.

Base Price for 1 Inch and Less in Thickness 20 cts.

PRICE FOR

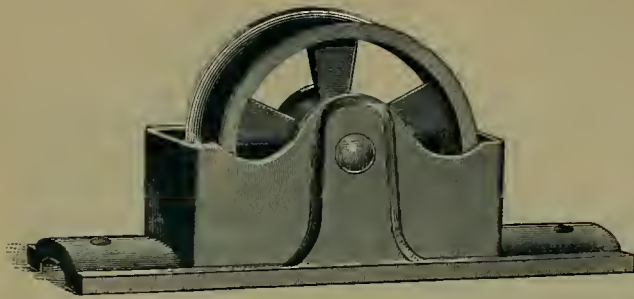
Inch,	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{4}$	$2\frac{1}{2}$
Cts.,	25	30	35	40	45	50



Iron.  
PLAIN PIN HOLE.



Iron.  
STEEL ROLLERS.



No. 111.

HOPKINS & DICKINSON M'FG CO'S  
ANTI-FRICTION  
Shutter Sheaves.

Polished Brass Wheel.

No. 111.

1½ Inch . . . . . Per Dozen, \$2 90

## Sliding Shutter Sheaves.

SUITABLE FOR

Light Sliding Sash and Doors.

Japanned Case.

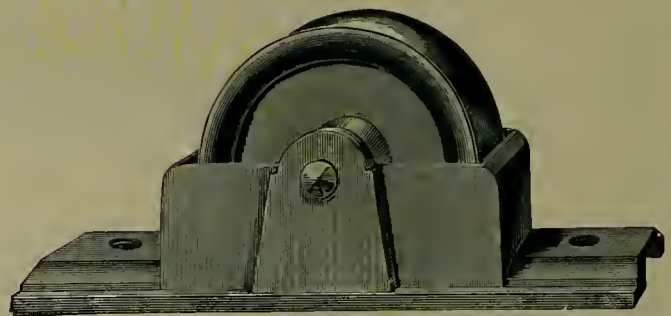
Grooves of Wheels Fit 1 1/8 Inch Brass Rail.

IRON WHEEL.

No. 20. 1¾ Inch . . . . . Per Set of 4, \$0 55

BRASS WHEEL.

No. 22. 1¾ Inch . . . . . Per Set of 4, \$0 96



Full Size Cut of Nos. 20 and 22.

## Sliding Door Sheaves.

ROUND EDGE CASE.

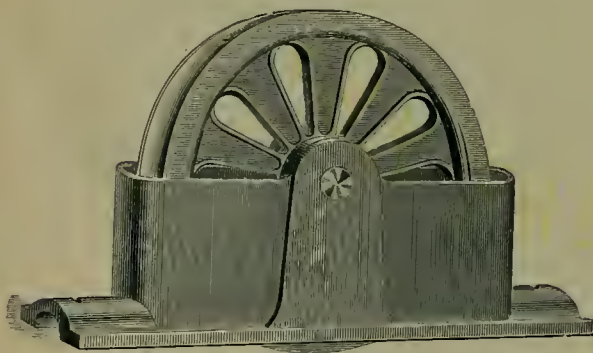
Japanned.

No. 20. GROUND WHEEL. IRON AXLE.

Inch,	3	4	5
Per Set of 4, \$1	25	65	30

No. 30. POLISHED WHEEL. BRASS AXLE.

Inch,	3	4	5
Per Set of 4, \$2	40	10	10



## Patent Roller

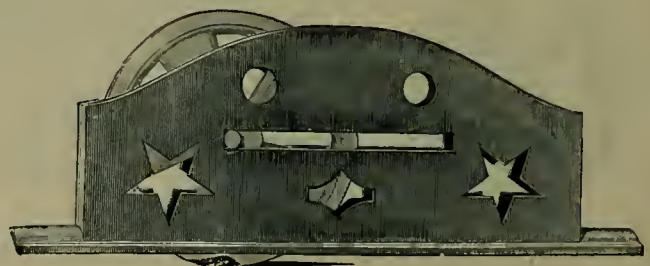
## Sliding Door Sheaves.

JAPANNED CASE.

Inch,	2½	3	4	5	6
Length of Run,	37	42	49	63	86
Per Set of 4, \$3	00	4 00	5 00	6 00	8 00

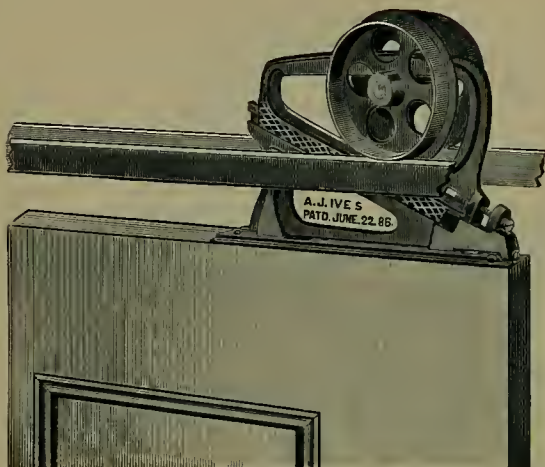
EXTRA HEAVY.

6 Inch, Length of Run 116 In. . . . . Per Set of 4, \$12 00









"IVES" PATENT

## Parlor Door Hangers.

PATENTED JUNE 22, 1886.

### PRICE.

Hangers, with Hard Wood Track, Complete, per Set of 4, \$6 00

Circulars, showing full size Illustration of the Hangers, sent by mail on application.

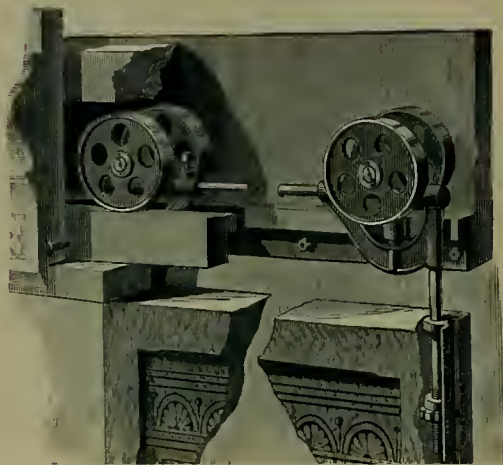
## "WARNER'S" Patent Sliding Hangers FOR Parlor Doors, Etc.

By their use the necessity of cutting carpets is obviated. There are no flanged wheels to ride or get off the track. There is no iron track on the floor. They are entirely concealed from view. The heaviest doors can be opened and closed with perfect ease. They can be readily adjusted to overcome settling or shrinkage.

### PRICE PER SET OF 4

Hangers, with 28 Feet of Hard Wood Track.

No. 1.	3½ Inch Wheel	\$ 6 00
No. 2.	4½ " "	10 00



"PARAGON"

## Anti-Friction Barn Door Hangers.

SPECIFIED BY ARCHITECTS AND BUILDERS.

The "Paragon" Hanger is claimed to be the best device for operating Sliding Doors ever shown to the Trade,

### BECAUSE

It is the strongest and most durable, made in one solid piece from *air-furnace refined malleable iron* (no bolts or rivets to wear and work loose), is the easiest operated, impossible to derail and *never requires lubricating*, and is by far the handsomest and finest finished Hanger in the market. Using the only polished steel Tee-Rail ever invented. Are made in three sizes (4 to 24 ft. run) for Barn and Warehouse use.

### PRICE.

No. 1.	Runs 6 Feet	Per Dozen Pairs, \$15 00
No. 2.	" 8 "	" " " 18 00
		Rail.
	Per Hundred Feet	\$8 00

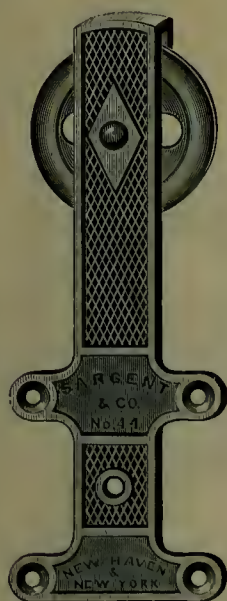
## Barn Door Rollers.



Round Groove Wheel.

Nos.,	104	105	106	108	110	
Diameter of Wheel,	4	5	6	8	10	Inch.
Per Pair,	\$0 60	0 72	0 90	1 25	1 75	

## Barn Door Hangers.



Checked Back.

NEW ENGLAND.



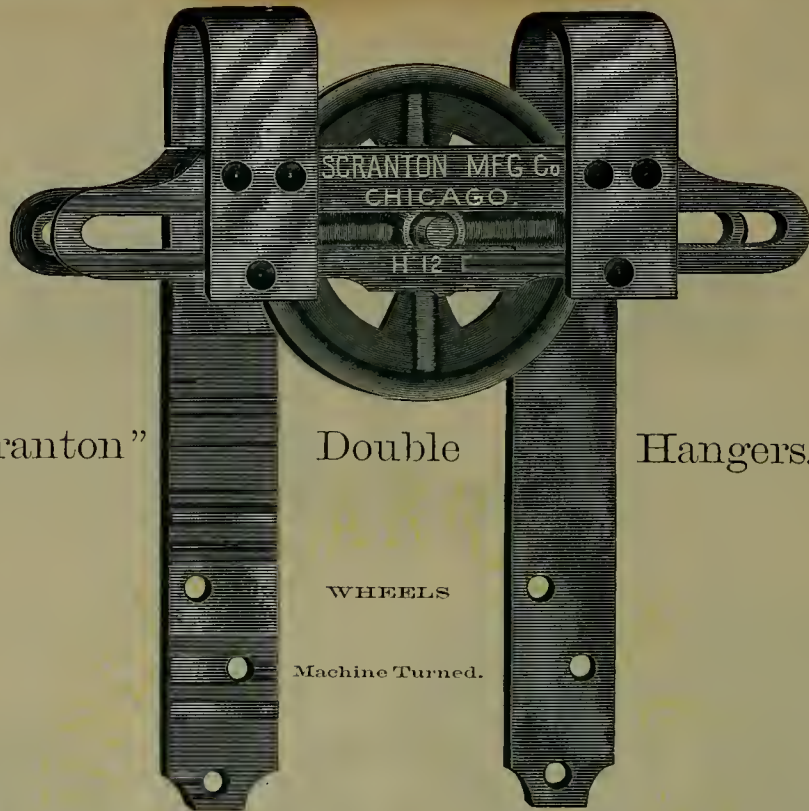
ROUND GROOVE.



CLIMAX.

Diameter of Wheel, Inch,	3	4	5	6	8
New England, Per Pair,	\$0 70	1 10	1 50	1 80	
Round Groove, " "		75	1 00	1 15	1 80
Climax, " "		1 50	2 00		



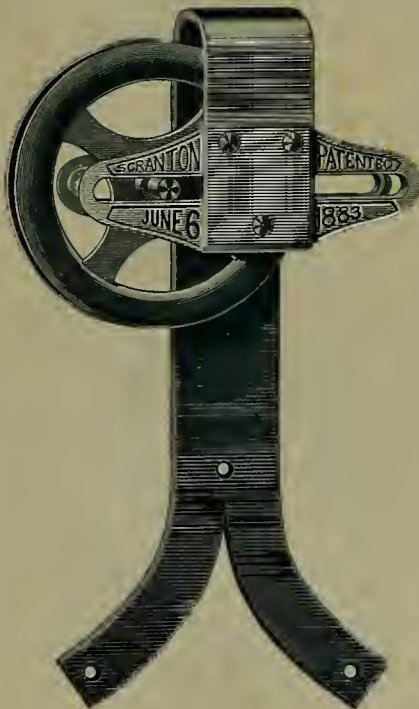


"Scranton" Double Hangers.

WHEELS

Machine Turned.

No. 5.	5	Inch	Wheel, for Medium Doors, runs 10 Feet	Per Pair, \$4 50
No. 6.	6	"	" " Heavy " " 12 "	" " 6 00
No. 7.	6	"	" " Extra Heavy Doors, runs 18 Feet	" " 7 50



No. 1.

"Scranton"  
Single Wheel  
Hangers.

STEEL.

ANTI-FRICTION  
FOR  
IRON TRACK.

No. 1.

5 INCH WHEELS.

Runs 10 Ft. Per Doz. Pairs, \$15 00

1 Dozen Pairs in a Case.

No. 12.

4 INCH WHEELS.

Runs 5½ Ft. Per Doz. Pairs, \$12 50

1 Dozen Pairs in a Case.



No. 12.

# "Scranton"

## Steel Friction Hangers.

SQUARE GROOVE

FOR

IRON TRACK.

Japanned.

AXLES BEST NORWAY IRON.

No. 3.

Loops Heavy Steel.

5 Inch Wheels . . . . Per Dozen Pairs, \$8 00

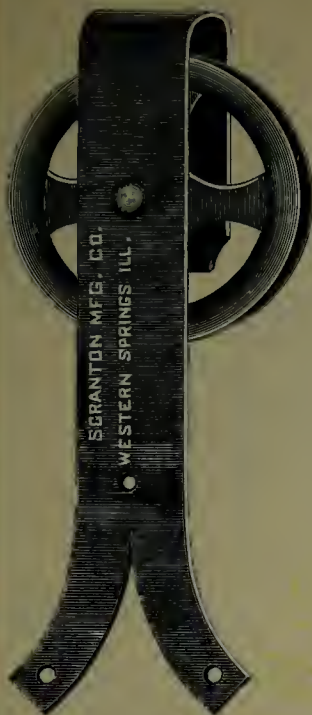
One dozen pairs in a case.

No. 9.

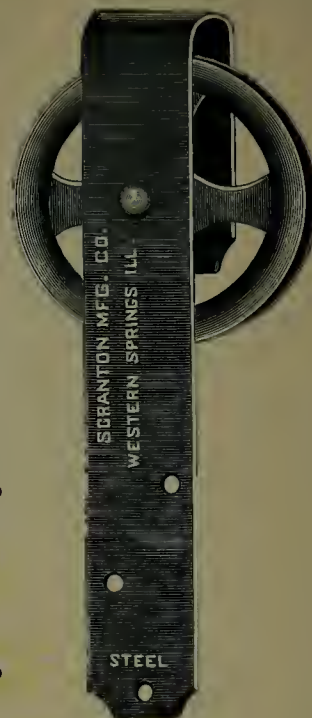
Loops  $1\frac{1}{2} \times 3\frac{1}{16}$  Steel.

$3\frac{1}{2}$  Inch Wheels . . . . Per Dozen Pairs, \$4 50

Two dozen pairs in a case.



No. 3.



No. 9.

## "Scranton" Door Trimmings.



Wrought Iron Track. Lock Joint.

1 x  $\frac{1}{4}$  Inch, Round Edge . . . . .

$1\frac{1}{4}$  x  $\frac{1}{4}$  " " " . . . . .

Per 100 feet, \$5 00

" " " 6 00

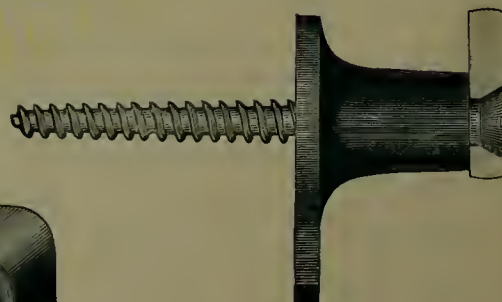


## "Scranton" Stay Roller.

Japanned.

Adjustable for Doors from  $\frac{1}{8}$  to  $3\frac{1}{2}$  Inches Thick.

Single . . . . . Per Dozen, \$2 00



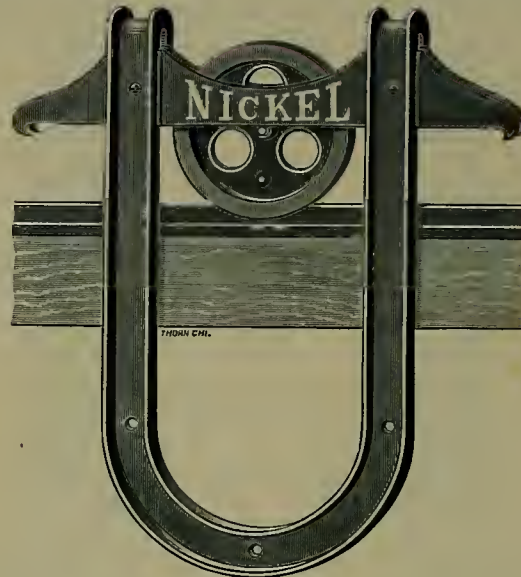
## Hanger Track Bracket.

With 3 Inch Screws . Per Hundred, \$2 00

# The Nickel Hangers for Barn Doors, Gates, Etc.

ALL STEEL.

ANTI-FRICTION.



Frame of first-class Bessemer Steel, bent from channel bars while hot. Malleable Iron rider bars with ribbed recesses for frames, so thoroughly braced

as to be equal to Solid Forgings.

They are easy to put on.

They run easily and don't get out of order.

They require no oiling, and no extra care of any sort.

They won't break, and they can't wear out.

## DESCRIPTION AND PRICES.

No. 0.	For 20 ft. Doors								Per Dozen Pairs, \$25 00
No. 1.	" 12 " "								" " " 20 00
No. 2.	" 7 " "								" " " 15 00

Special Rail for above . . . Per ft., \$0 05 (See page 220)

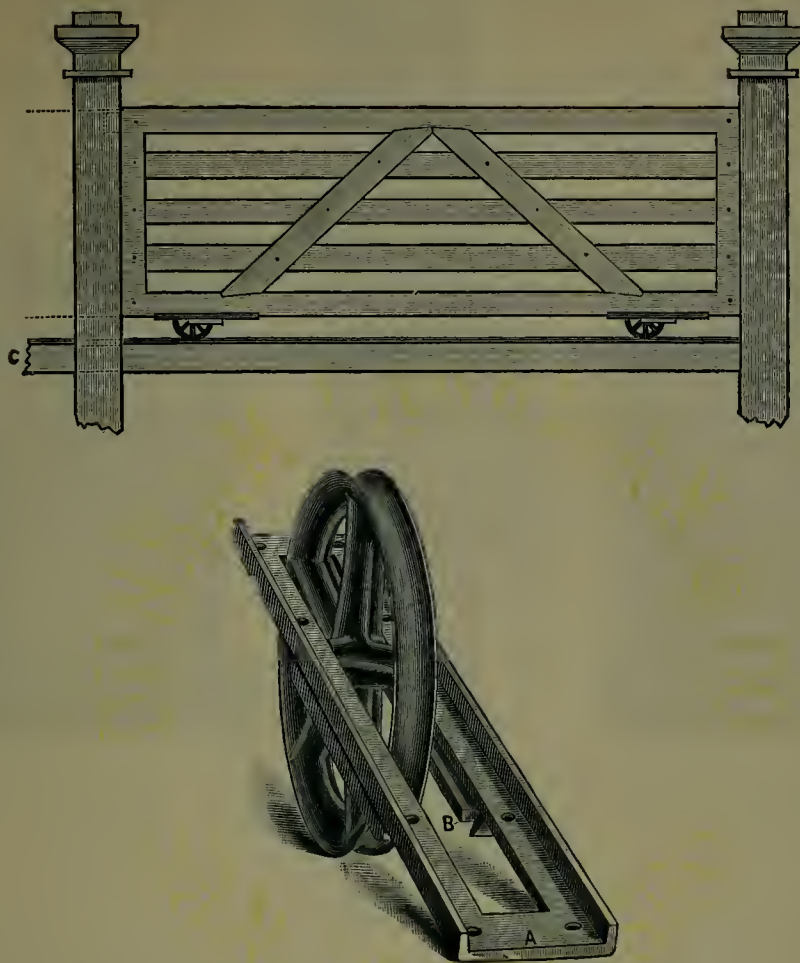
No. 0 will carry 6,000 lb. Width  $\frac{3}{16}$  In. Flat Bar Steel to carry same weight, 4.45 In.

No. 1 " " 4,000 lb. "  $\frac{3}{16}$  " " " " " " 2.83 In.

No. 2 " " 2,200 lb. "  $\frac{3}{16}$  " " " " " " 1.59 In.



## "Donnelly's" Patent Gate Rollers.



These Rollers were gotten up by Mr. Donnelly at the request of various parties in San Mateo County, who were in want of a good, strong and reliable article for farm use. They have now been invented some three years, and are in use on many of the principal farms of San Mateo, Redwood, and other localities in that neighborhood.

The Rollers are made of the best Cast Iron, are 10 inches in diameter, and have a Steel Axle,  $\frac{1}{2}$  inch thick, (and as the Axle moves forward, in slots, each side of the frame **B**), instead of remaining stationary (as is the case with the old style of gate-rollers), the friction is almost nothing in a movement of 12 feet.

The Track of the Gate is made of Wrought Iron, half round, 1 inch wide, and can be furnished all in one piece up to a length of 24 feet, thereby avoiding any joints or roughness for the Rollers to pass over, and at the same time furnishing a strong track over which loaded teams can be driven without fear of breaking the rail.

Send for Complete Circular.

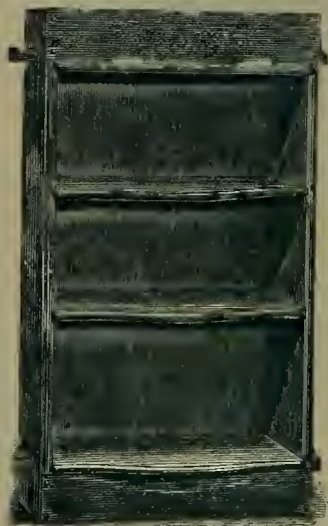
### PRICES.

Rollers	Per Pair, \$2 50		Rail	Per Foot, \$3 10
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## Dumb Waiter Fixtures.

SEE DESCRIPTION

ON OPPOSITE PAGE.



Style of Waiter with Stationary  
Shelves for Private  
Residences.



Style of Waiter with Hinged  
Shelf for Flats and  
Restaurants.

ABOVE CUTS SHOW "CANNON'S" PATENT DUMB WAITERS

FOR

Dwelling House, Restaurant, Hotel and Light Factory Use.

WAITERS CAN BE MADE TO FIT ANY SIZED OPENING.

### Weights Required for these Fixtures.

For light work, a weight ten pounds heavier than the box is sufficient. For use in Flats, or where required to run more than one Story, the weight should be fifteen to twenty pounds heavier than the box.

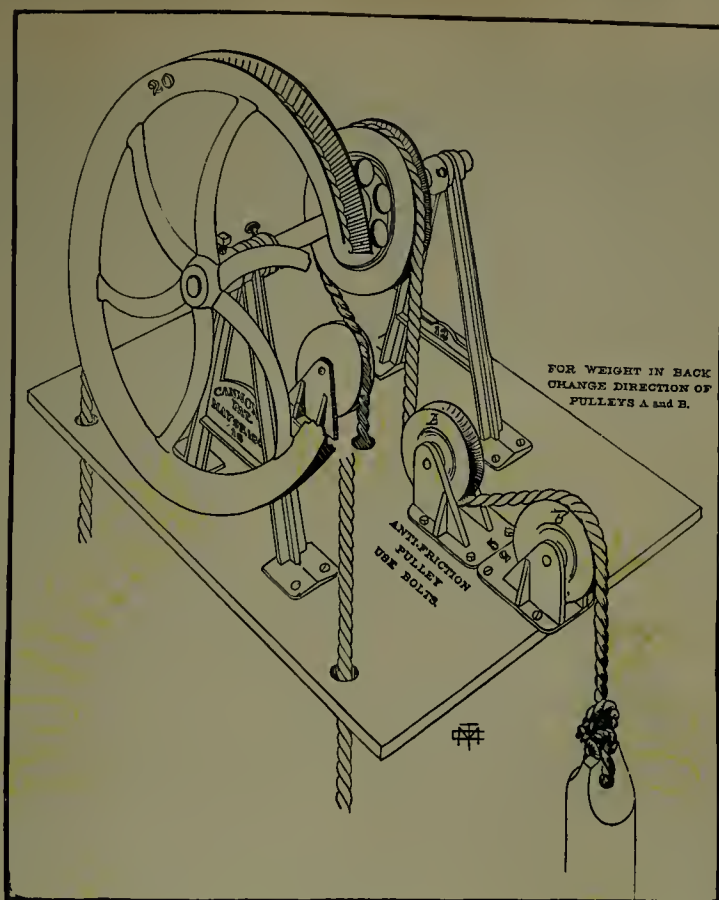
Weight and Rope Furnished by us if Desired.

### PRICES AND SIZES OF FIXTURES.

For Openings, 19 to 22 Inches Wide, use a 16 Inch.										Single Face.	Double Face.
Prices for Fixtures only										\$25 00	\$30 00
"	"	23 to 27	"	"	"	20	"	"	"	27 50	35 00
"	"	28 to 32	"	"	"	24	"	"	"	30 00	38 00
"	"	34 to 38	"	"	"	30	"	"	"	35 00	42 00

In ordering Double-Face Fixtures, give Dimension of Well Hole, in order to obtain proper length of Shaft.

Double-Face Fixtures to order only. Not kept in Stock.



### Directions for Putting up "Cannon's" Patent Dumb Waiter Fixtures.

Use  $1\frac{1}{4}$  inch board for shelf, on which securely fasten the fixture as shown in cut, also use  $1\frac{1}{4}$  inch board for bottom shelf, on which the Waiter rests, when it is down.

See that fixtures set perfectly plumb and level on top shelf.

For light work use  $\frac{3}{8}$  manilla rope; for heavy work use  $\frac{1}{2}$  manilla rope, both on the hoist wheel and for attaching weight to Waiter.

For private residences we can furnish a fine drab braided cotton rope, which, fastened with steel couplings, is preferable for handling to the manilla rope in general use.

In this cut the two Friction Rollers, **A** and **B**, are shown as being close together; this may not necessarily be, as **A** should always be so placed as to catch the rope, plumb, from the small shaft wheel, and **B** must be on edge of shelf to carry the weight clear of the Waiter side.

By changing these rollers, the weight can be coursed in any direction desired, either on side, back or in the corner.

In this age of improvements, many articles for the convenience of the householder have been invented and introduced into new buildings, and also in the remodeling of old ones.

Although Dumb Waiters have been in use for many years, there seem to have been until recently but few, if any improvements made over the old styles.

Even the most common articles of household use have undergone far more improvements than the Dumb Waiter.

People seemed to consider that a box, a rope and a weight were all that was necessary to give them the means of transporting their dishes and other articles to the different floors of their dwellings, notwithstanding this combination jarred, and often caused a disastrous smash of the load intrusted to its care.

In private residences where a Dumb Waiter is required, "CANNON'S" PATENT will be found to give entire satisfaction. For all ordinary purposes it does not require a clamp to hold it in position, as it will sustain a weight of from 35 to 50 pounds without running down. But where the Waiter is to be loaded in excess of that weight, the clamp must be used to insure perfect safety.

The working parts being of Iron and the shaft running on Babbit Metal, they are strong as well as noiseless.

Any good mechanic can build the Waiter, and by attending to the directions can apply the fixtures.

There are many cases where a Waiter is wanted to open in front on one floor, and in the back on another. This requires a double-faced fixture, which is our regular fixture, with a hoist wheel on each end of the shaft.

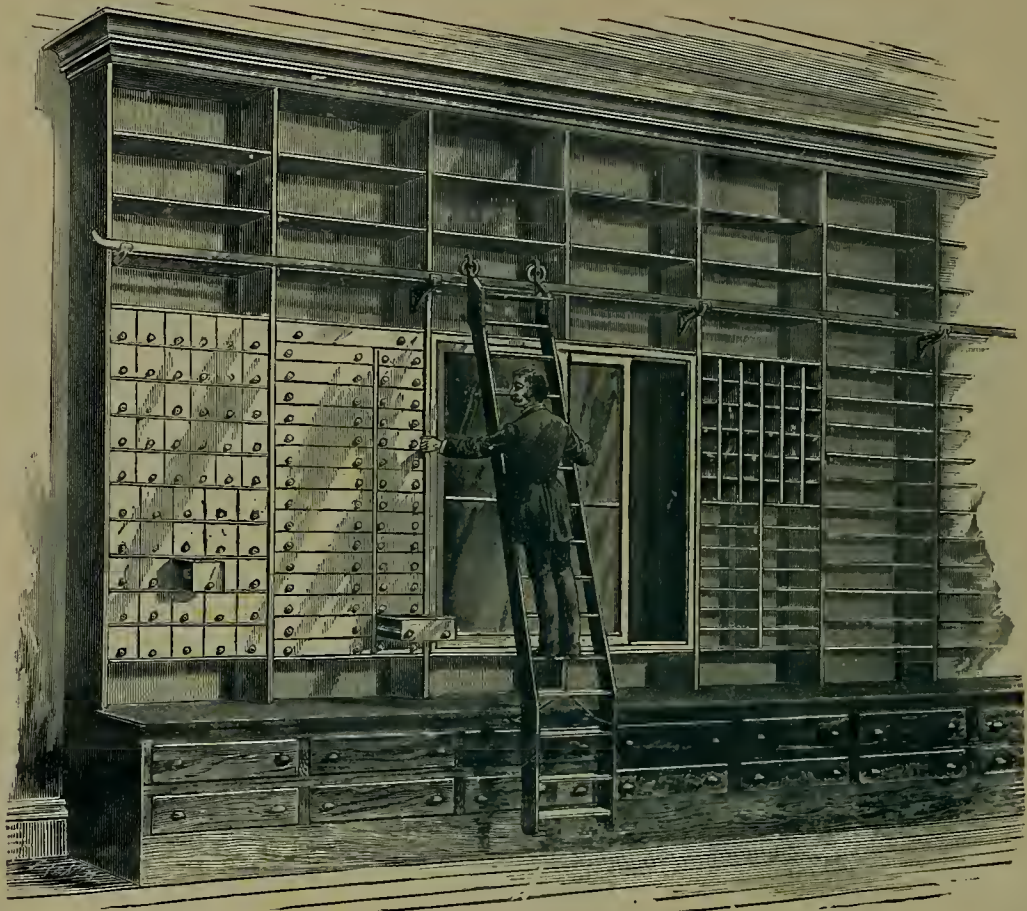
In splicing the hoisting-rope, care should be taken to have the sliding sheave, which goes under the bottom shelf, remain in the centre of guide rods; this will allow for the shrinkage or stretch of the rope. Waiters running more than two stories, the sliding sheave can be dispensed with.

For Illustrations and Prices, see opposite Page.



# "Lockett's" Railroad Step Ladder.

PATENTED.



## Reasons why every Store should use the "Lockett" Railroad Step Ladder:

1. The Ladder is always in its place.
2. It is never in the way.
3. It prevents scratching and marring the shelving and goods on shelves.
4. It is perfectly steady, and any one can use it with perfect safety—a heavy man as well as a light one.
5. You can reach goods on shelving near ceiling just as easily as those lower down.
6. A man can easily pull himself along while standing on the ladder, without being obliged to get down and place ladder twice to reach goods a few feet away.
7. The ladders will very soon pay their cost by saving time in taking down and putting up goods. The top shelf is made wide on this account.
8. When once equipped with ladders and rail all expenses in that line are at an end.
9. Every one who has used them pronounce them PERFECT.
10. Should you have occasion to change your place of business, the ladders and rail (rail being made in sections) can be taken down and adjusted in another place.

In ordering Ladder Fixtures and Rail be particular to observe the following Directions:

FIRST.—State how many Ladders you will require. (Would suggest using one for every 30 to 50 feet of shelving.)

SECOND.—Give length of Rail required.

THIRD.—Give number of Standards in each line of shelving, and send a diagram giving distances from the centre of each Standard. This information is necessary in order for us to know the number of Brackets you will require.

### PRICE OF ALL THE IRON WORK COMPLETE FOR THE LADDERS.

Roller Hangers and Braces	Per Pair or Set, \$12 00
Brackets for Holding Rail in Place	Each, 0 60
Jointed Rail, Finished with Splice Screws	Per Foot, 0 40

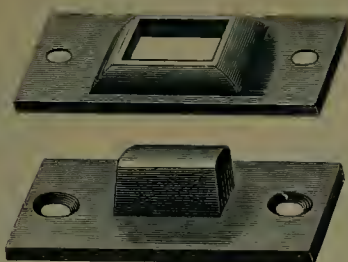
Ladders may be seen Working at

Nos. 17 AND 19 BEALE ST.,  
Nos. 118 AND 120 MARKET ST.,

SAN FRANCISCO.

Nos. 111, 113 AND 115 CALIFORNIA ST.,  
Nos. 117 AND 119 CALIFORNIA ST.,

# Stubs and Plates.



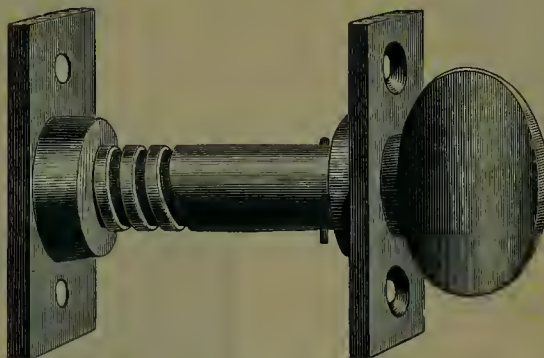
Full Size Cut.

Japanned.

No. 2. Square, Heavy

Per Gross, \$4 00

## Shutter Screws.



Japanned.

Heavy. Square Thread.

Inch,  $1\frac{1}{4}$   
Per Gross, \$12 15

2  
13 30

$2\frac{1}{4}$   
13 60

$2\frac{1}{2}$   
14 00

## Castors.

PLATE.



Full Size Cut of No. 3.

PHILADELPHIA.



Full Size Cut of No. 903.

Plate. All Iron.

Nos.	1	2	3	4	5	6	7
Per Set, \$	0 11	0 13	0 15	0 18	0 22	0 27	0 36

Plate. Brass Wheel.

Nos.	31	32	33	34	35	36	37
Per Set, \$	0 24	0 28	0 33	0 42	0 48	0 60	0 80

Plate. All Brass.

Nos.	91	92	93	94	95	96	97
Per Set, \$	0 40	0 50	0 60	0 75	0 90	1 10	1 50

Philadelphia Pattern.

Iron Horn. Iron Wheel.

Nos.	901	902	903	904	905	906	907
Per Set, \$	0 12	0 13	0 15	0 17	0 19	0 22	0 28

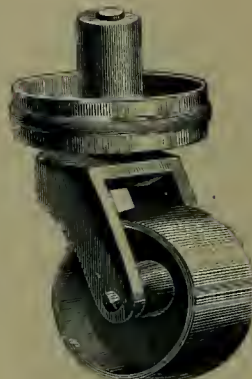


## Socket Casters.

DEEP SOCKET.

No. 21. Full Size Cut of  $1\frac{1}{4}$  Inch.

SHALLOW SOCKET.

No. 120. Full Size Cut of  $1\frac{1}{4}$  Inch.

All Brass.

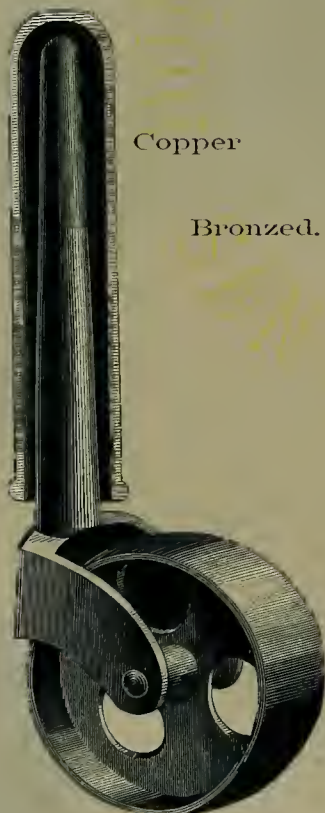
No. 21.

Diam. of Socket, In.,	$\frac{3}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$
Per Set, \$	72	0 77	0 92	1 08	1 30	1 65

No. 120.

Diam. of Socket, In.,	$\frac{3}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$
Per Set, \$	45	0 55	0 70	0 87	1 00	1 20

## Iron Bed Casters.



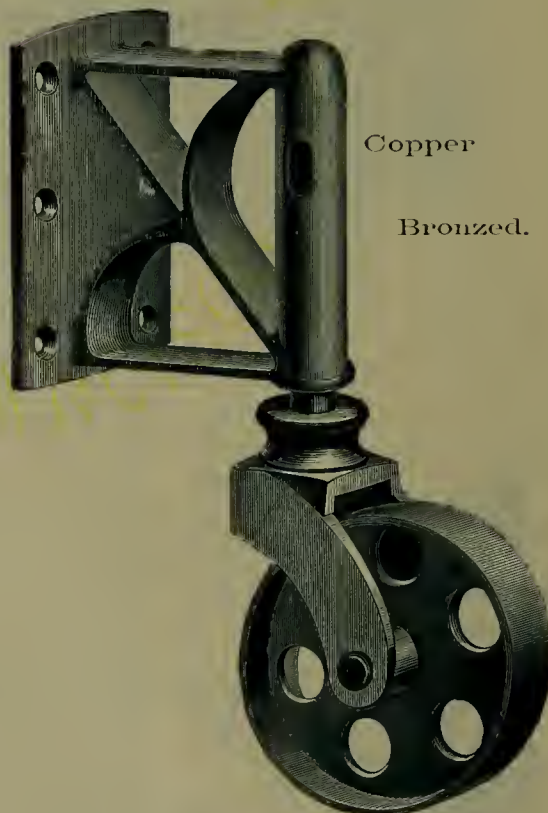
Copper

Bronzed.

Iron Wheel. No. 404.

Nos. 403	401	405
Per Set, \$ 17	0 19	0 21

## Bracket Bed Casters.



Copper

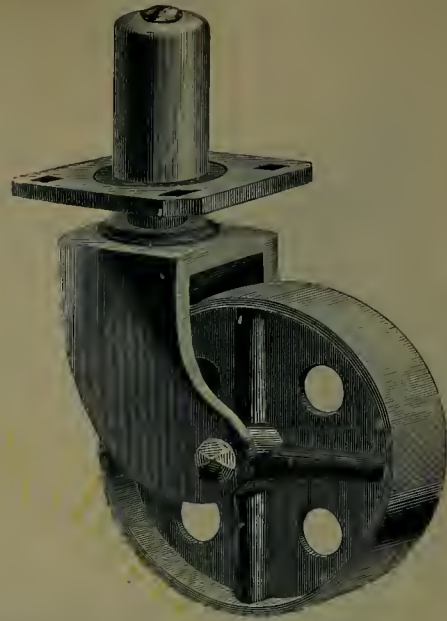
Bronzed.

No. 603.	Maple Wheel, 3 Inch	Per Set, \$ 90
No. 604.	Apple " 3 "	" " 1 00





Half Size Cut of Nos. 825 and 845.



Half Size Cut of Nos. 835 and 855.

## Japanned.

### Stationary.

No. 823.	3	Inch Wheel	Each, \$0 26
No. 824.	4	" "	" 0 35
No. 825.	4½	" "	" 0 41

### With Noiseless Turned Wheel.

No. 845.	4½	Inch Wheel	Each, \$0 77
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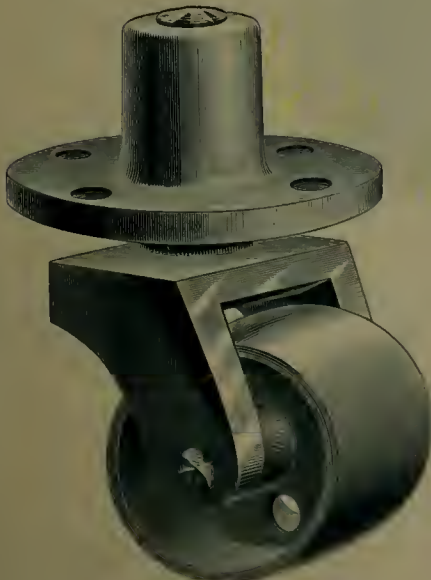
### Swivel.

No. 833.	3	Inch Wheel	Each, \$0 32
No. 834.	4	" "	" 0 40
No. 835.	4½	" "	" 0 50

### With Noiseless Turned Wheel.

No. 855.	4½	Inch Wheel	Each, \$1 10
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## Pianoforte Casters.

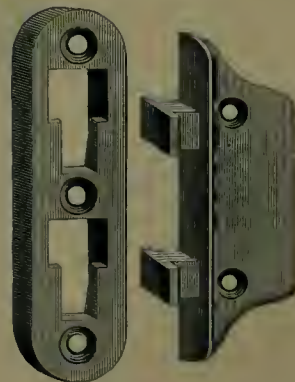


Full Size Cut of No. 18.

All Iron.

No. 18. Turned Wheel, Short Heavy Stem, for Upright Pianos, etc., per set, \$0 90

## Bedstead Fastenings.



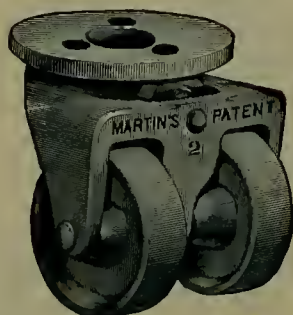
Half Size Cut of No. 5.

Double Hook.

No. 5, 4½ Inch

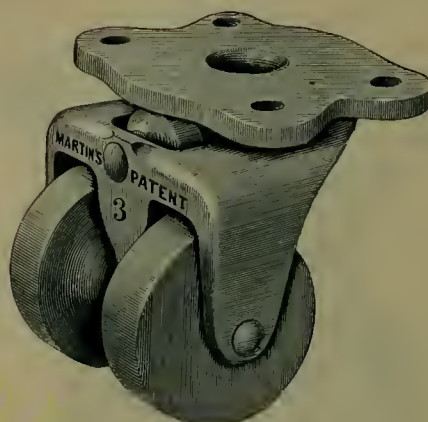
Per Set, \$0 27

## “Martin’s” Casters.



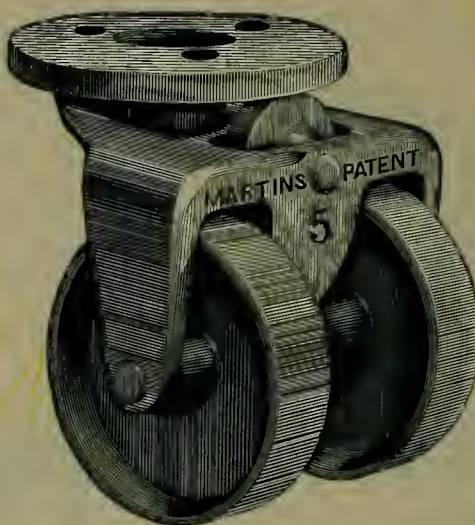
ROUND PLATE.

No. 2. For Parlor Chairs and other very Light Furniture.



OBLONG PLATE.

No. 3. For Invalid and Office Chairs, Extension and Light Tables, Rope Reels, Flower Stands, etc.



ROUND PLATE.

No. 4. For Bedsteads, etc., etc.

No. 5. For Heavy Bedsteads, Book Cases, Flower Stands, Refrigerators, Safes, Sideboards, Desks, or very Heavy Furniture.

No. 6. For Pianos, Extra Heavy Sideboards, and Book Cases.

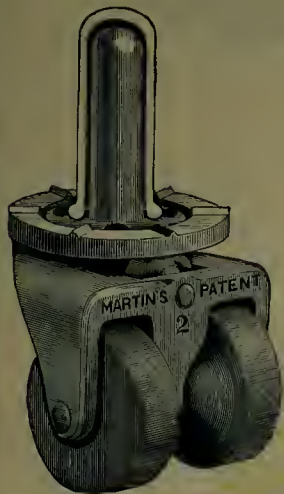
### Round and Oblong Plate

WITH

Iron or Lignum Vitæ Wheel.

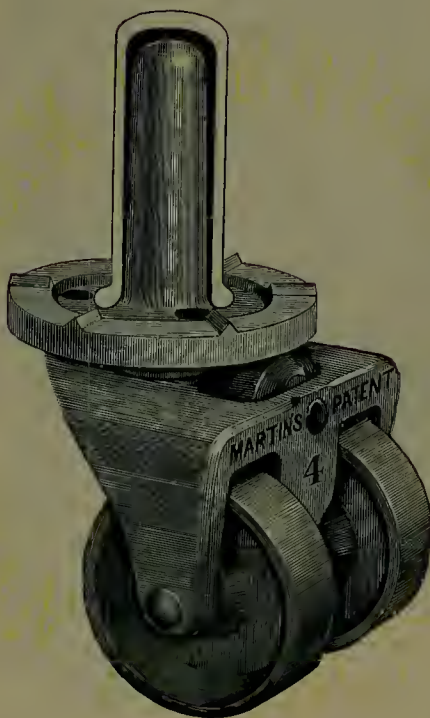
#### PRICE LIST.

No.	Diameter of Wheel	1	Inch, Round or Oblong Plate	Per Set of 4, \$	80
No. 2.	"	"	"	"	"
No. 3.	"	"	1 3/8	"	0 85
No. 4.	"	"	1 3/8	"	0 90
No. 5.	"	"	2	"	1 00
No. 6.	"	"	1 3/8	"	1 25



ORDINARY STEM.

No. 2. For Parlor Chairs and  
other very Light  
Furniture.

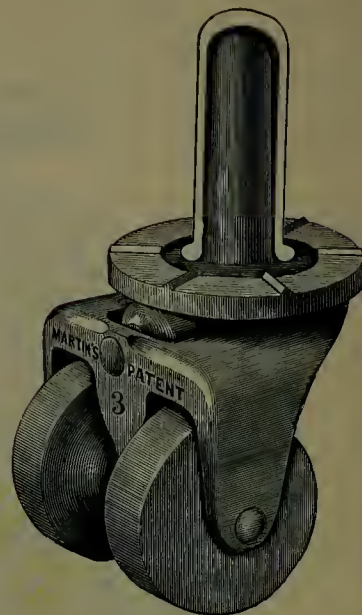


ORDINARY STEM.

No. 4. For Bedsteads, etc., etc.

**No. 5.** For Heavy Bedsteads, Book Cases, Flower Stands, Refrigerators, Safes, Sideboards, Desks, or very Heavy Furniture.

No. 6. For Pianos, Extra Heavy Sideboards and Book Cases. Furnished with Phoenix Stem.



ORDINARY STEM.

No. 3. For Invalid and Office Chairs,  
Extension and Light Tables,  
Rope Reels, Flower  
Stands, etc.

### Ordinary Stem

WITH

Iron or Lignum Vitæ Wheel.

### PRICE LIST.

[illegible]



## “Martin’s” Casters.



No. 10. OBLONG PLATE CASTER.

No. 7. For Show Cases, etc., etc.

No. 8. For Show Cases, Light Store Trucks, Ice Chests, Heavy Refrigerators, Heavy Flower Stands, etc. Especially useful as a truck under Sample Stoves, or any heavy Sample Goods.

No. 10 is particularly adapted to Heavy Ice Chests, Magazine Boxes, Store Trucks, Heavy Show Cases, Beer Boxes, Large Refrigerators, or any very heavy weight. Warranted to sustain 4,000 pounds.

No. 12. Medium Warehouse Trucks.

No. 14. Warehouse Trucks, or for carrying any immense load.

### Iron Wheels.

#### PRICE LIST.

No. 7.	Diameter of Wheel	2 $\frac{1}{4}$ Inch,	Round or Oblong Plate	.	.	.	.	.	.	Per set of 4, \$1 50
No. 8.	"	"	2 $\frac{1}{4}$ "	"	"	"	"	"	"	" " " 4, 1 75
No. 10.	"	"	3 $\frac{1}{4}$ "	"	"	"	"	"	"	" " " 4, 2 00
No. 12.	"	"	4 $\frac{1}{4}$ "	Oblong Plate	.	.	.	.	.	" " " 4, 6 00
No. 14.	"	"	4 $\frac{3}{4}$ "	"	"	"	"	"	"	" " " 4, 7 50



## Barn Door Rail.



Suitable for Round Groove Hangers, and Rollers Nos. 104 to 110. See Page 205.

No. 44.	$\frac{1}{2}$ Inch, for Small Wheels	Per Foot, \$0 06 $\frac{1}{2}$
No. 45.	$\frac{5}{8}$ " " Medium "	" " 0 09
No. 47.	$\frac{7}{8}$ " " Large "	" " 0 14

## Hanger Rail. Angle.



Suitable for "New England" and "Climax" Hangers. See Page 205.

No. 10.	For Small Wheels	Per Foot, \$0 06
No. 12.	" Medium "	" " 0 07 $\frac{1}{2}$
No. 14.	" Large "	" " 0 09

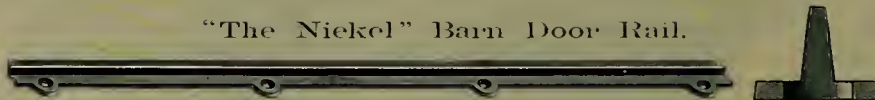
## Door Rail for "New England" Hangers.



See Page 205.

No. 2.	For Small Wheels	Per Foot, \$0 08
No. 4.	" Medium "	" " 0 09

## "The Nickel" Barn Door Rail.



See Page 208. All the Nickel Barn Door Hangers use the same Rail.

SECTIONAL VIEW.

In 2 Feet Lengths

Per Foot, \$0 05

## Rail for Sliding Door Sheaves Nos. 20 and 30.



See Page 202.

No. 135.	$1\frac{1}{4}$ Inch Wide, Painted, in 2 Feet Lengths	Per Foot, \$0 08
No. 145.	$1\frac{3}{4}$ " " " " 2 " "	" " 0 14 $\frac{1}{2}$
No. 155.	2 " " " " 2 " "	" " 0 18

## Hopkins & Dickinson M'fg Co.'s Jointed Rail for "Collins" Sheaves.



See Page 203.

BRONZE.

No. 21.	$\frac{1}{2}$ Inch	Per Foot, \$0 60	No. 21 $\frac{1}{2}$ .	$\frac{9}{16}$ Inch	Per Foot, \$0 70
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Wrought

Brass Rail.



Suitable for Sheaves Nos. 20, 22, 30 and 111.

See Page 202.

$1\frac{1}{8}$  Inch Flange, Per Foot, \$0 12 $\frac{1}{2}$

In Lengths of 4, 6 and 8 Feet.



# Giant Metal Sash Chain.

## Advantages as a Substitute

FOR CORD IN

## Hanging Weights to Windows.

FIRST.—It has greater tensile strength than any other chain of the same weight.

SECOND.—It resists the friction of one link on the other better than any other metal.

THIRD.—It is not affected by exposure to the elements, or by salt air or water, and does not *corrode* and *rust*.

FOURTH.—It does not crystallize, or become brittle, or lose its vitality by continuous use, as is the case with inferior metals.

FIFTH.—It is made by automatic machinery, and is therefore more uniform in construction and quality, as a defective link invariably stops the machine.

SIXTH.—It runs freely over the ordinary pulley, round or square groove.

SEVENTH.—The fixtures for attaching to the sash and to the weight are more substantial and durable, and very simple and easily applied.

EIGHTH.—The sash with *our* fixtures can be readily disengaged, and the windows taken out for washing or other purposes.

NINTH.—The GIANT METAL SASH CHAIN will endure more strain without stretching than any other metal, and there is no danger of the weights striking the bottom of the pocket, if hung properly, nor of the chain becoming too long to close the sash.

TENTH.—It does not absorb moisture, like even the best of cord, and runs as freely in *wet* weather as in *dry*.



## PRICE OF SASH CHAIN AND FIXTURES.

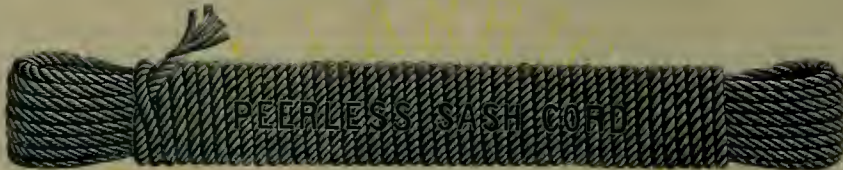
No. 1. Giant Metal Chain	Per Foot, \$0 12
No. 2. " " "	" " 0 10
No. 2. Red " "	" " 0 08
No. 2. Steel " "	" " 0 06
Fastenings, Window of Two Sashes	" Set, 0 18

## "Silver Lake" Braided Sash Cords.



Nos.	7	8	9	10	12
Size, Inch,	7/32	8/32	9/32	10/32	12/32 Diam.
Feet in lb,	55	46	40	30	24
White Cotton					Per Pound, \$0 50
Drab "					" " 0 55
Italian Hemp					" " 0 50

## Twisted Sash Cords.

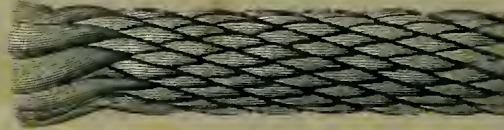


No. 4.	Peerless American Hemp	Per Dozen, \$ 4 00
No. 2.	Ludlow's Russian "	" " 5 00
No. 12.	" Italian "	" " 7.50
No. 5.	" Extra "	" " 12.00

## Irish Flax Hand Laid Sash Cords.

1/4 @ 5/16 Inch Diameter	Per Pound, \$0 50
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## "Silver Lake" Braided Cotton Rope.



Nos.	14	16	18	20	24	28
Size, Inch,	14/32	16/32	18/32	20/32	24/32	28/32
Feet in lb,	20	15	11	8	7	5

### One Dozen Hanks in a Bundle.

White Cotton, all Sizes	Per lb, \$0 55	Drab Cotton, all Sizes	Per lb, \$0 60
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In Coils of any length required, suitable for Dumb Waiters, Yacht Rigging, etc.

## "Silver Lake" Braided Chalk Lines.



20 Feet Hanks, 12 Hanks in a Bundle, all in one Piece.

Nos.	0	1	2	3	3 1/2
Per Gross, \$6 00		6 50	7 00	7 50	18 00

# Twisted Cotton Chalk Lines.

223



7½.

9.

10½.

12½.

15.



## Twenty Feet Lines.

Nos.	1	2	3	4	6	7½	9	10½
Per Gross, \$2 62		3 00	3 75	4 00	6 00	7 50	9 00	10 50

## Mason's Lines.

Colored Cotton.

No. 27. 100 Feet Long	Per Dozen, \$3 00	No. 28. 50 Feet Long	Per Dozen, \$1 50
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Galvanized Wire



Clothes Lines.

100 Feet in a Coil.

No. 19. Six Strands of No. 19 Wire and one of Hemp	Per Dozen Coils, \$8 00
--	-------------------------

## Manilla and Sisal Rope.

IN COILS.		Per Pound.		IN COILS.		Per Pound.	
		Sisal.	Manilla.			Sisal.	Manilla.
1 1/4 In. Cir. (7/16 Dia.),	Base Sizes			Hay or Bale Rope			
12 Thread " (3/8 " ),				Oil Well Rope			
9 " " (5/16 " ),				Tarred Marline and Houseline			
6 " " (1/4 " ),							

## Average Length and Weight of Rope.

Diameter.	Circumference.	Length per pound.	Length of Coil.	Average Weight of Coil.	Diameter.	Circumference.	Length per pound.	Length of Coil.	Average Weight of Coil.
1/4 inch.	6 thread.	50 feet.	150 fms.	18 lbs.	1 3/8 inch.	4 inch.	2 1/10 feet.	125 fms.	358 lbs.
5/16 "	9 "	33 "	140 "	27 "	1 7/16 "	4 1/4 "	1 7/8 "	125 "	400 "
3/8 "	12 "	25 "	135 "	32 "	1 1/2 "	4 1/2 "	1 5/8 "	125 "	462 "
7/16 "	1 1/4 inch.	19 "	150 "	46 "	1 5/8 "	5 "	1 1/3 "	125 "	562 "
1/2 "	1 1/2 "	14 "	140 "	60 "	1 3/4 "	5 1/4 "	1 1/4 "	125 "	600 "
9/16 "	1 3/4 "	10 "	125 "	75 "	1 7/8 "	5 1/2 "	1 1/2 "	125 "	700 "
5/8 "	2 "	7 1/2 "	125 "	100 "	2 "	6 "	11 1/4 inch.	125 "	800 "
3/4 "	2 1/4 "	6 "	125 "	125 "	2 1/8 "	6 1/2 "	9 "	125 "	1000 "
13/16 "	2 1/2 "	5 "	125 "	150 "	2 1/4 "	7 "	8 "	125 "	1125 "
7/8 "	2 3/4 "	4 1/2 "	125 "	167 "	2 1/2 "	7 1/2 "	7 1/2 "	125 "	1200 "
1 "	3 "	3 5/8 "	125 "	208 "	2 5/8 "	8 "	6 "	125 "	1500 "
1 1/16 "	3 1/4 "	3 1/8 "	125 "	240 "	2 7/8 "	8 1/2 "	5 1/2 "	125 "	1636 "
1 1/8 "	3 1/2 "	2 2/3 "	125 "	282 "	3 "	9 "	5 "	125 "	1800 "
1 1/4 "	3 3/4 "	2 1/3 "	125 "	322 "					



## Bright Wire and Brass Screw Hooks.



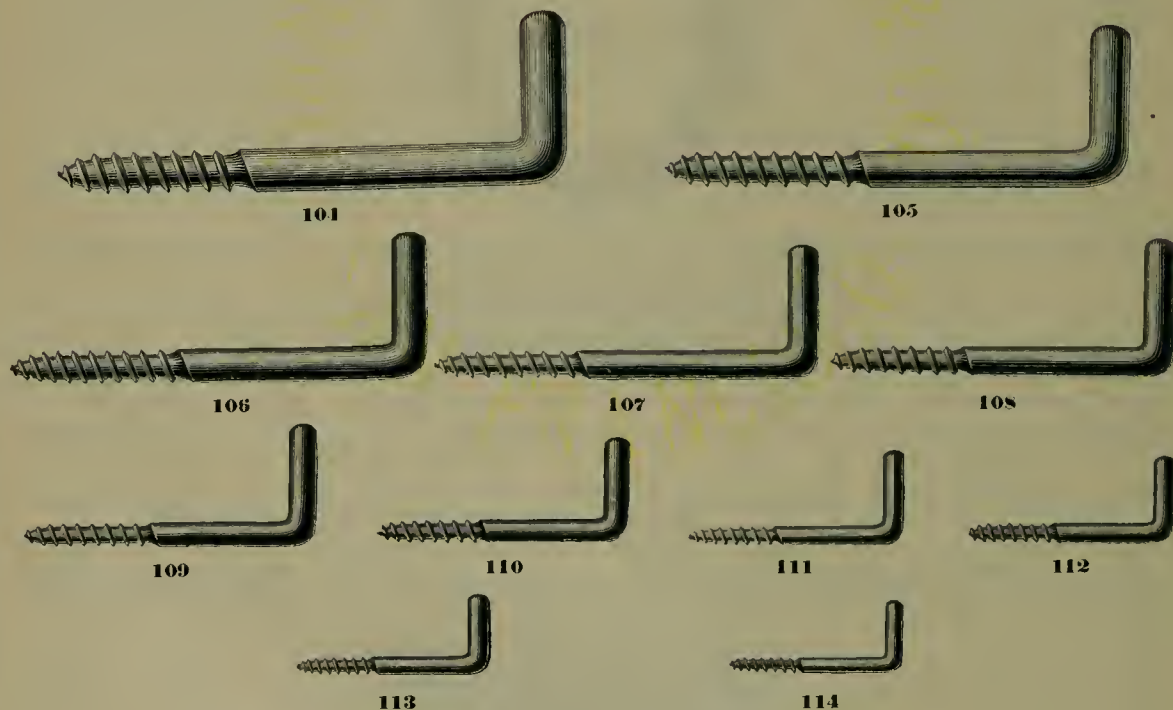
Bright Iron Screw Hooks.

Nos.	9	10	11	12	13	14
Per Gross, \$	2 50	2 25	2 00	1 80	1 70	1 60

Brass Wire Screw Hooks.

Nos.	1009	1010	1011	1012	1013	1014
Per Gross, \$	6 50	5 25	4 25	3 50	3 00	2 75

## Square Turn Iron and Brass Screw Hooks.



Iron, Square Turn Screw Hooks.

Nos.	101	105	106	107	108	109	110	111	112	113	114
Per Gross, \$	6 00	5 00	4 00	3 00	2 75	2 50	2 25	2 00	1 80	1 70	1 60

Brass, Square Turn Screw Hooks.

Nos.	1101	1105	1106	1107	1108	1109	1110	1111	1112	1113	1114
Per Gross, \$	22 00	18 50	15 50	11 00	8 00	6 50	5 25	4 25	3 50	3 00	2 75

# Bright Iron and Brass Screw Hooks.

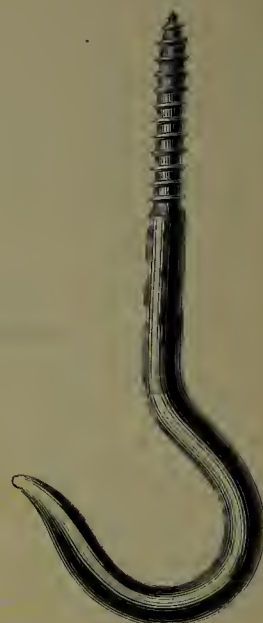
225



2

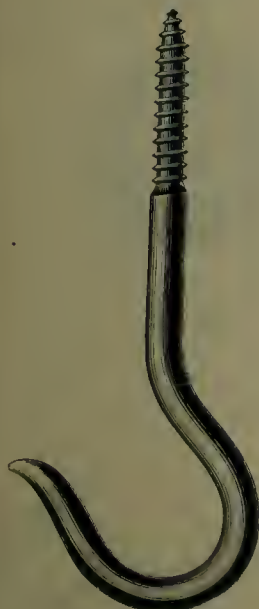


3



4

Brass, No. 1004



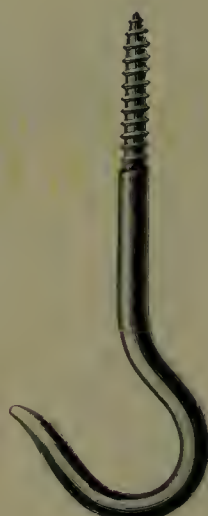
5

Brass, Nos. 1005



6

1006



6 1/2

1006 1/2



7

1007



8

1008

## Iron Wire Hooks.

Nos.	0	1	2	3	4	5	6	6 1/2	7	8
Gross, \$	12 00	10 00	8 00	7 00	6 00	5 00	4 00	3 50	3 00	2 75

## Brass Wire Hooks.

Nos.	1004	1005	1006	1006 1/2	1007	1008
Per Gross, \$	22 00	18 50	15 50	14 00	11 00	8 00

## Wire Cornice Hooks and Eyes.

Full Size Cut of  $2\frac{1}{2}$  Inch.

## Bright Wire Cornice Hooks. With Eyes.

Inch,	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	$5\frac{1}{2}$	6	7	8	9	10	11	12
Iron, per Gross,	\$6 50	7 00	7 50	8 00	8 50	9 00	10 00	11 00	12 00	13 00	15 00	17 00	19 00	22 00	25 00

## Wire Gate Hooks and Eyes.

Full Size Cut of  $2\frac{1}{2}$  Inch.

## Bright Wire Gate Hooks and Eyes.

Inch,	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	$5\frac{1}{2}$	6
Iron, per Gross,	\$6 50	7 50	8 50	10 00	11 50	12 50	14 00	15 50	17 00	19 00

## Brass Wire Gate Hooks and Eyes.

Inch,	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	$5\frac{1}{2}$	6
Brass, per Gross,	\$12 00	16 00	20 00	25 00	32 00	40 00	50 00	55 00	60 00	70 00

## Brass Ring Handles.



No. 0.

Ring, Inch,	$\frac{1}{2}$	$\frac{3}{8}$
Per Gross,	\$3 20	3 60



No. 1.

Ring, Inch,	$\frac{3}{4}$	$\frac{7}{8}$
Per Gross,	\$4 75	5 25



No. 2.

Ring, 1 Inch.	
Per Gross	\$6 75

## Brass Curtain Rings.

CURTAIN  
RING.

Nos.,	20	18	18	18	16	16	14
Size,	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1
Per Gross,	\$0 27	0 35	0 40	0 50	0 75	0 95	1 35

## Brass Screw Rings.

Nos.,	18	16	16	16	16	14
Size,	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1
Per Gross,	\$1 00	1 75	2 25	2 80	3 20	5 00

SCREW RING.

 $\frac{5}{8}$  Inch.



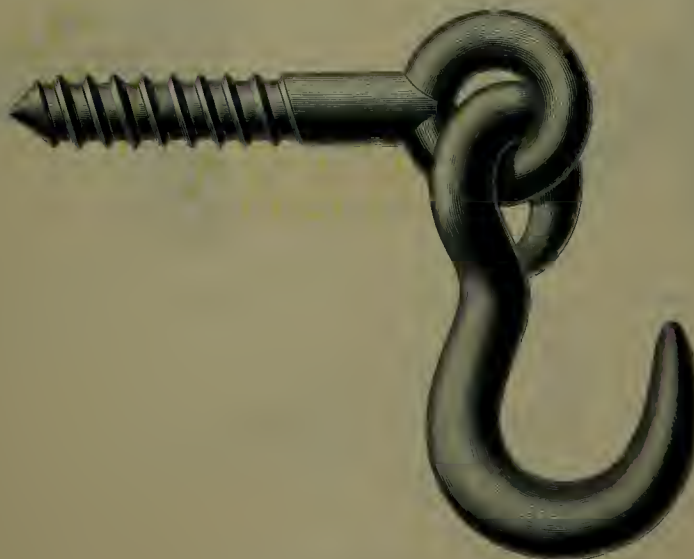
# Wrought Hammock Hooks.



Full Size Cut of No. 57.

Wrought Iron,  $\frac{7}{16}$  Inch Diameter. With Plate.

No. **57.** Galvanized,  $\frac{7}{16}$  Inch . . . . . Per Dozen, \$2 80



Full Size Cut of No. 67.

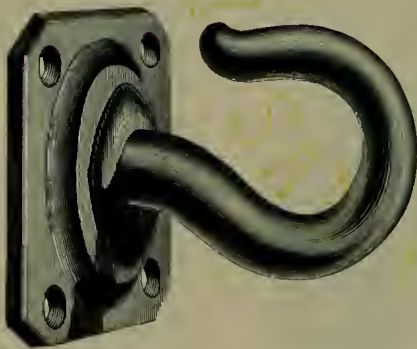
Wrought Iron,  $\frac{7}{16}$  Inch Diameter. With Screw.

No. **67.** Galvanized,  $\frac{7}{16}$  Inch . . . . . Per Dozen, \$2 65

## Clothes Line Hooks.



Full Size Cut of No. 1, Japanned, and No. 21, Galvanized.



Full Size Cut of No. 2, Japanned, and No. 22, Galvanized.



Full Size Cut of No. 3, Japanned, and No. 23, Galvanized.

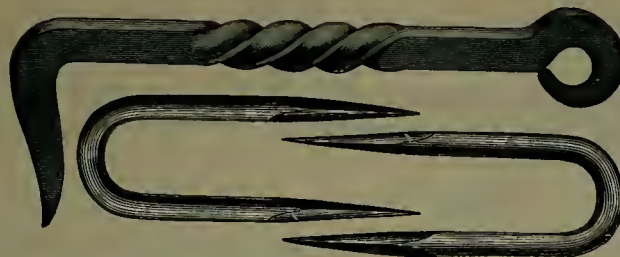
## Japanned.

Nos.	1	2	3
Per Dozen, \$	1 30	0 75	0 60

## Galvanized.

Nos.	21	22	23
Per Dozen, \$	2 10	1 20	1 00

# Wrought Hooks and Staples.

Full Size Cut of  $3\frac{1}{2}$  Inch.

STAPLES MADE BY HAND FROM NORWAY IRON.

## No. 10. Wrought Iron.

Inch,	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	$5\frac{1}{2}$	6	7	8
Per Gross, \$	6 50	7 50	8 50	10 00	11 00	12 00	13 00	14 00	18 00	23 00

## No. 12. Galvanized Wrought Iron.

Inch,	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	$5\frac{1}{2}$	6	7	8
Per Gross, \$	9 50	11 00	12 50	14 50	16 50	17 50	19 50	21 00	26 00	35 00

$2\frac{1}{2}$  to 6 Inch, quarter gross in a box. 7 and 8 Inch, one-sixth Gross.

# Wrought Awning Hooks.



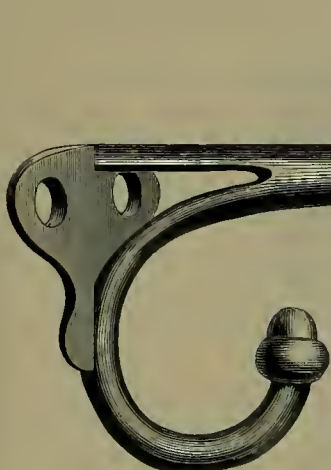
Full Size Cut of 3 Inch.

## No. 60. Wrought Iron.

Inch,	$1\frac{3}{4}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6
Per Gross, \$	6 00	6 50	7 00	7 50	8 00	9 00	10 00	11 00	13 00



# Coat and Hat Hooks.



Full Size Cut of No. 8.



Full Size Cut of No. 28.



Full Size Cut of No. 48.

Japanned.

Nos. 8  
Per Gross, \$2 70

28  
4 50

48  
6 50

Copper Bronzed.

No. 108. (Same size as No. 8)

Per Gross, \$2 70

# Coat and Hat Hooks.

231



Full Size Cut of No. 75.



Full Size Cut of No. 20.

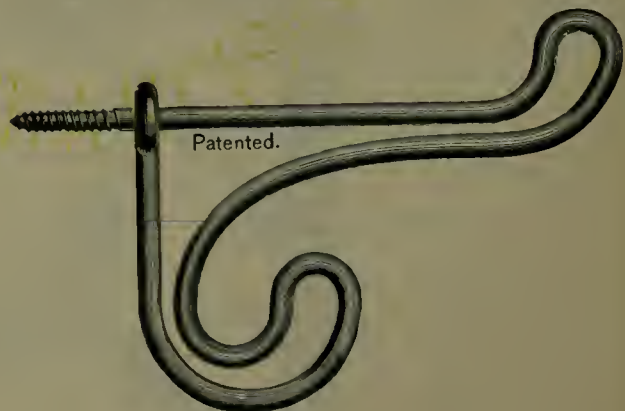
Japanned.

No. 75 . . . . .	Per Gross, \$2 50		No. 20 . . . . .	Per Gross, \$3 75
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Full Size Cut of No. 113. Patented.

THE "GEM" WIRE COAT AND HAT HOOKS.



Full Size Cut of No. 70.

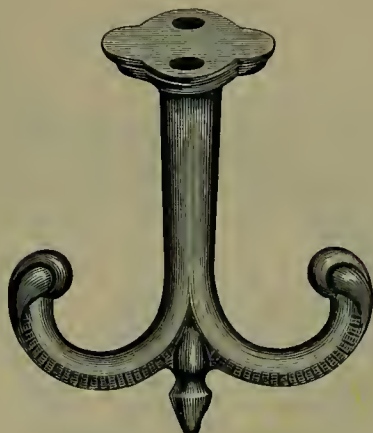
Copper Bronzed.

No. 113 or 89 . . . . .	Per Gross, \$4 50
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Walnut Bronzed.

No. 70. 3 Inch . . . . .	Per Gross, \$2 55
No. 80. 3½ " . . . . .	" " 3 20

## Ceiling Hooks.



Full Size Cut of No. 33, with Screw Holes.

## Wardrobe Hooks.



Full Size Cut of No. 505.

## Ceiling Hooks.

## Japanned.

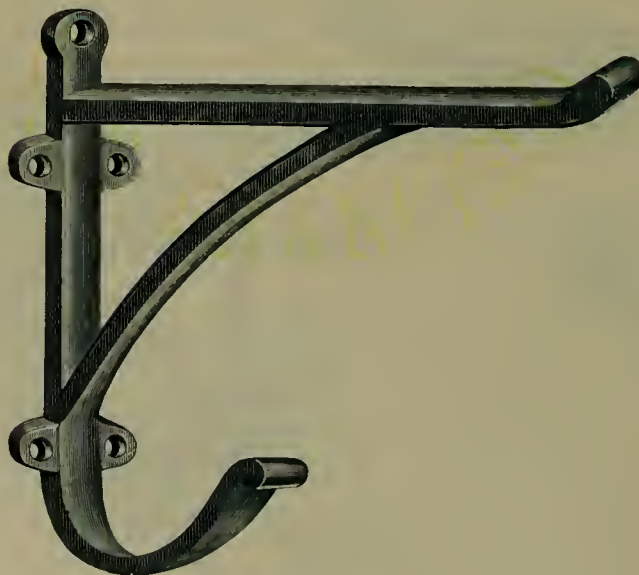
## Wardrobe Hooks.

No. 32.	With Cast Screws	Per Gross, \$2 75
No. 33.	" Screw Holes	" " 3 00

Nos. 504	505	506
Per Gross, \$1 70	2 12	2 35

## Store Hooks for Displaying Goods.

SUITABLE FOR HARDWARE.



Quarter Size Cut.

Very Large and Heavy. Japanned.

No. 35.	Whole Length 10½ Inches	Per Dozen, \$7 00
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# Hotel or School House Hooks.

233



Full Size Cut of No. 91.



Full Size Cut of No. 93. Patented.



Full Size Cut of No. 92.

Japanned.

Nos. 91

Per Gross, \$4 50

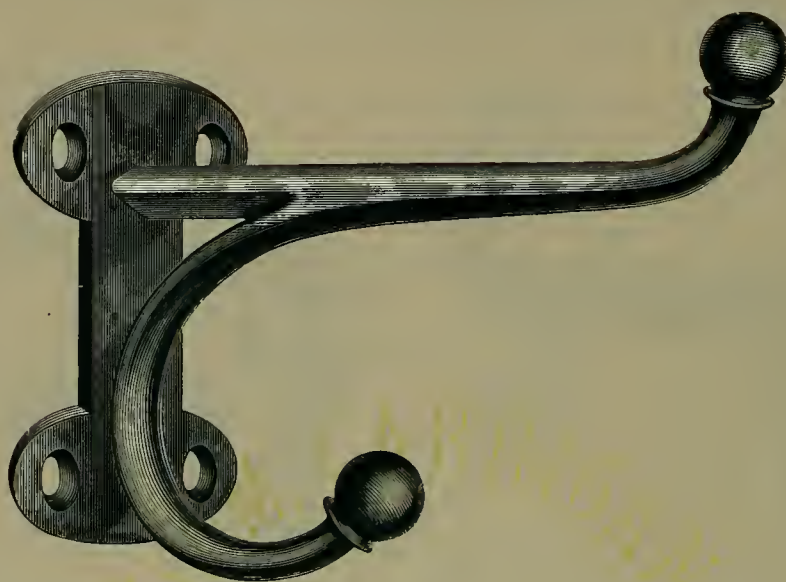
92

7 00

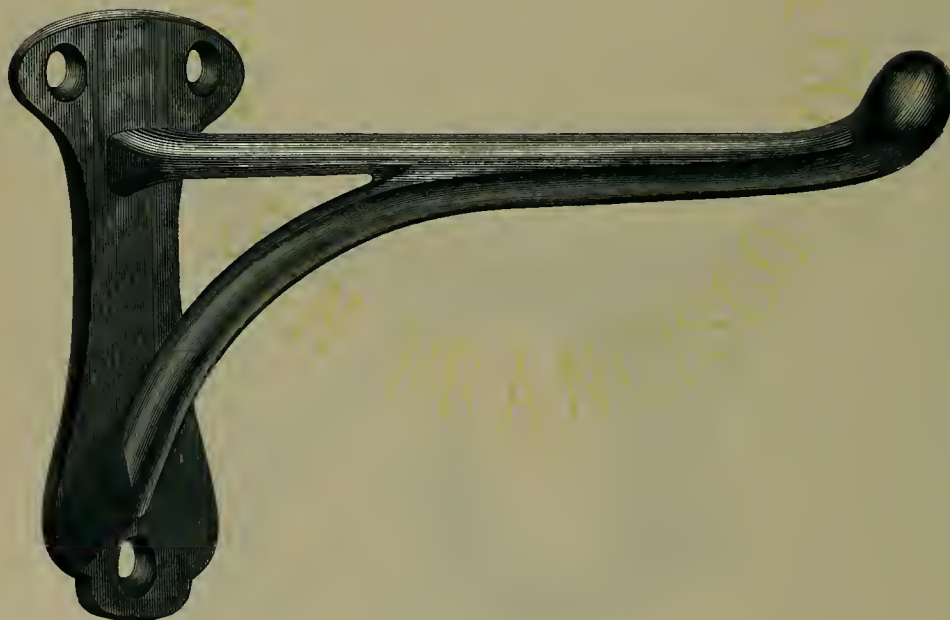
93

7 50

## Harness Hooks.



Style of Nos. 2 and 3.



Style of No. 5.

Japaned.

[illegible]

## Coat and Hat Hooks.



Full Size Cut of No. 224.



Full Size Cut of No. 204.



Full Size Cut of No. 392. Patented.

PACKED WITH SCREWS.

Tuscan Bronzed.

No. 224

Per Gross, \$6 00

No. 204

Per Gross, \$8 00

Berlin Bronzed.

No. 392. With Porcelain Knobs

Per Gross, \$24 00



## Coat and Hat Hooks.



Full Size Cut of No. 344. Patented.



Full Size Cut of No. 339. Style No. 355.

## Gold Bronzed.

No. 344.	With Porcelain Knobs	Per Gross, \$22 20
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## Cast Brass.

No. 339.	Polished and Lacquered, Porcelain Knobs, 4 Screw Holes	Per Gross, \$75 00
No. 355.	" " " " " 2 " "	" " 84 00

# Brass Coat and Hat Hooks.

237



Full Size Cut of No. 316.



Full Size Cut of No. 336. Patented.

Cast Brass. Polished and Lacquered.

No. 316.	Plain, with Porcelain Knobs,	Per Dozen, \$7 00
No. 336.	Fancy, " " "	" " 4 50

## Chandelier Hooks.

WITH SNAP.



Nos. 220 and 520. Full Size Cut of 4 Inch Screw.



No. 250. Full Size Cut of 2½ Inch Screw.



No. 260. Full Size Cut of ¾ Inch.



No. 280. Full Size Cut of 4 Inch Screw.

## Dolphin Pattern.

No. 220. Tuscan Bronzed.  
 4 Inch Screw, . . . . . Per Dozen, \$1 45  
 6 " . . . . . " " 1 75

No. 520. Cast Brass.  
 4 Inch Screw, . . . . . Per Dozen, \$6 00

## With Safety Snap.

No. 280. Tuscan Bronzed.  
 Length of Screw, 4 6 8 10 12 Inch.  
 Per Dozen, \$2 40 2 70 3 15 3 70 4 20

## With Plate.

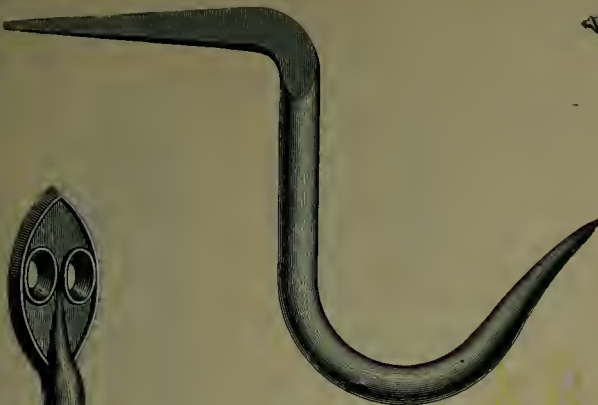
No. 250. Tuscan Bronzed.  
 2½ Inch Screw . . . . . Per Dozen, \$0 95

## To Screw on to Gas Pipe.

No. 260. Tuscan Bronzed.  
 ¾ Inch (for ¾ inch Gas Pipe) . . . . . Per Dozen, \$1 10  
 ½ " " ½ " " " " " " " " 1 25

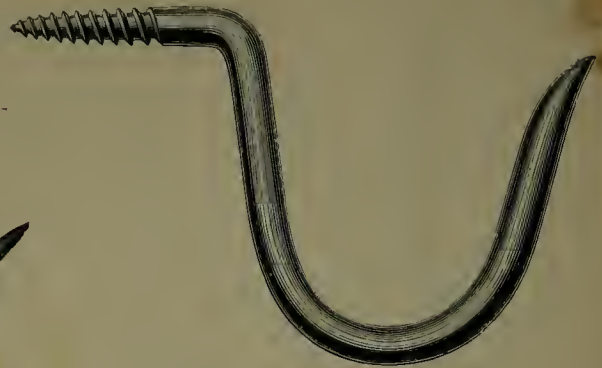


# Tinned Meat Hooks.



TO DRIVE.

Full Size Cut of No. 12. Style of Nos. 13 to 16.



TO SCREW.

Full Size Cut of No. 44. Style of Nos. 43 and 45.



TO SCREW ON.

Full Size Cut of No. 32. Style of Nos. 33 and 34

Tinned, Wrought Iron. To Drive.					
Nos.	12	13	14	15	16
Per Gross, \$	7 40	9 80	12 90	14 00	19 00

Tinned, Wrought Iron. To Screw on.				
Nos.	32	33	34	35
Per Gross,	\$7 80	10 20	12 40	12 40

Tinned Wire. To Screw.				
Nos.	43	44	45	46
Per Gross,	\$12 00	10 00	9 00	9 00

## Bar Meat Hooks.

### TINNED, WROUGHT IRON.

No. 90.	5/16 In. Round Iron, for 2 1/8 In. Bar, per Gross,	\$27 50
No. 92.	1/2 " " " " 2 1/4 " " " " "	56 25



Full Size Cut of No. 92.

Made to Slide on a Bar.

# Paper Files.

TUSCAN BRONZED.

No. 38

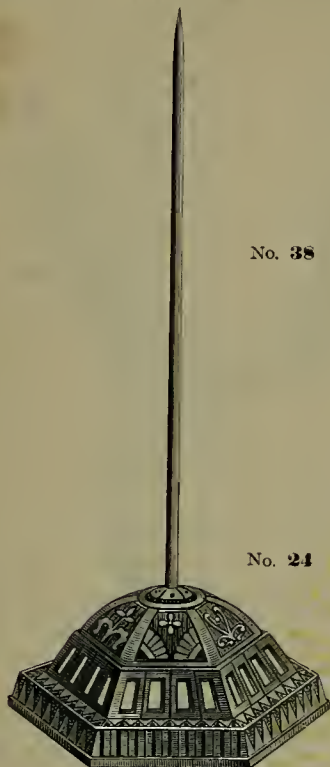
Per Dozen, \$1 75

# Paper File Hooks.

TUSCAN BRONZED.

No. 24

Per Dozen, \$1 00



Half Size Cut of No. 38.



Half Size Cut of No. 24.  
Patented.

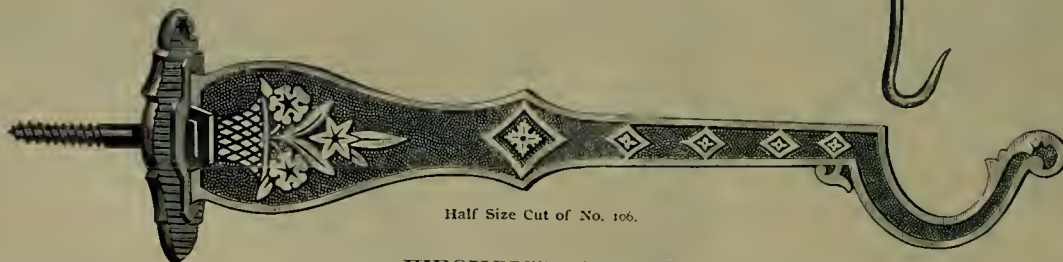
# Bird Cage Hooks.



Half Size Cut of No. 25.



Half Size Cut of No. 46.



Half Size Cut of No. 106.

WROUGHT SCREWS.

No. 25.	Tuscan Bronzed	Per Dozen, \$0 90
No. 46.	Berlin Bronzed, Patent Swinging Hook	1 50
No. 106.	" " Very Large and Heavy	2 50

# Bird Cage Hooks.

241



One-third Size Cut of No. 50.

No. 50. Berlin Bronzed, Wide Base

Per Dozen, \$2 25



One-third Size of Cut No. 5.

Narrow Base.

No. 5. Berlin Bronzed . . . Per Dozen, \$2 20



One-third Size of Cut No. 10.

Broad Base.

No. 10. Berlin Bronzed . . . Per Dozen, \$2 65



One-third Size of Cut No. 20.

No. 20. Fancy Bronzed, Extra Heavy

Per Dozen, \$5 75



## Twine Boxes.



Half Size Cut of No. 76. Patented.

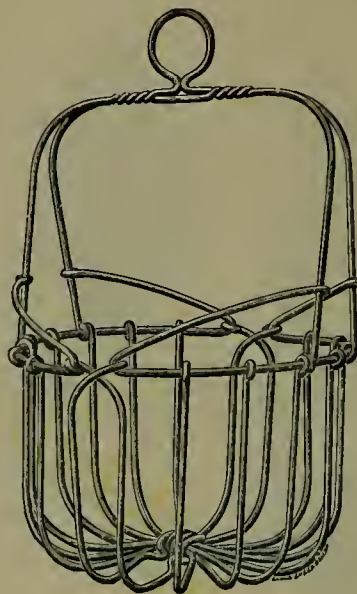
No. 41. Japanned

Per Dozen, \$6 75

No. 76. Berlin Bronzed

8 50

## Wire Twine Basket.



Patented.

Tinned.

No. 40

Per Dozen, \$6 00

## Bee-Hive Twine Boxes.



Finished in Black, and Gold Bronzed.

No. 34. Size Inside, 4 x 4 1/2 Inches

Per Dozen, \$8 00

# Brass Cup Hooks.

No. 81. Full Size Cut of  $\frac{3}{4}$  Inch.No. 81. Full Size Cut of  $1\frac{1}{4}$  Inch.

No. 82. Full Size Cut of 1 Inch.

## Polished and Lacquered.

### No. 81. Brass Wire.

Inch,	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$
Per Gross, \$	3 75	3 85	4 00	4 50	5 25	6 50	8 50	10 50	12 50

### No. 82. Cast Brass.

Inch,	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2
Per Gross, \$	6 60	7 15	8 40	10 20	12 50	15 50	19 80

# Brass Screw Hooks.

Full Size Cut of  $\frac{1}{2}$  Inch.

Full Size Cut of 1 Inch.

## Polished and Lacquered.

### No. 412. Brass Wire.

Inch,	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$
Per Gross, \$	2 70	2 85	3 35	3 90	4 55	5 30

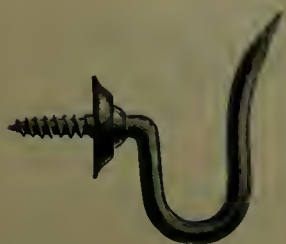
# Brass Lamp Hooks.



## Cast Brass. Polished and Lacquered.

Nos.	20	21	22	23	24	25	26
Inch,	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	$1\frac{7}{8}$	2	$2\frac{1}{4}$	$2\frac{1}{2}$
Per Gross, \$	6 00	8 00	9 25	10 00	14 25	19 00	23 25

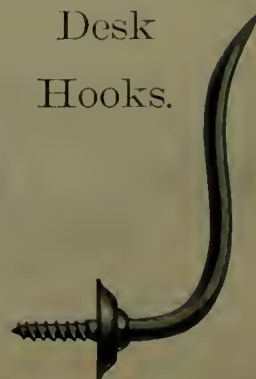
# Telegraph Hooks.



No. 171. Brass

Per Gross, \$8 00

# Desk Hooks.



No. 191. Brass

Per Gross, \$8 00

## Upholsterers' Nails.



Nos. 9  
Per 1,000, \$2 50



10  
2 30



11  
2 00



12  
1 65



19  
1 80



11  
1 80



Nos. 12  
Per 1,000, \$1 40



13  
1 25



121 (215)  
2 00



122 (241)  
2 25



123 (243)  
2 50

## China Nails and Discs.



No. 137 1/2

No. 137 1/2

Nails.

Per Thousand, \$1 00

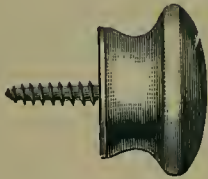
Discs.

Per Thousand, \$0 70



No. 137 1/2

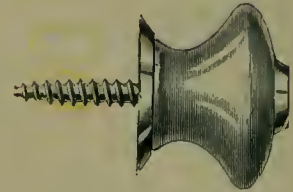
## Shutter Knobs.



No. 1. Full Size Cut of 1 Inch.



No. 76. Full Size Cut of 3/8 Inch.



No. 40. Full Size Cut of 1 1/4 Inch.

## No. 1. Porcelain. With Fast Screw.

Inch, 3/8	3/4	1	1 1/2	1 3/4	1 1/2	1 3/4	2
Per Gross, \$3 75	3 90	4 40	4 75	6 20	7 75	11 50	13 00

## No. 40. Porcelain. With Tinned Screw.

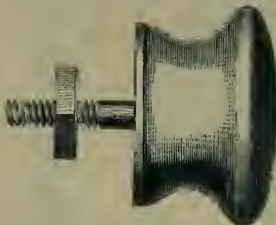
Silver-Plated Base under Screw Head and under Knob.

Inch, 3/4	1	1 1/2
Per Gross, \$5 50	5 75	6 00
		1 1/8
		6 50

## Nickel-Plated.

No. 76. 3/8 Inch	Per Gross, \$20 00
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## PORCELAIN DRAWER KNOBS.



Full Size Cut of 1 1/4 Inch.

## No. 5. Fast Screw, with Nut and Washer.

Inch, 1	1 1/4	1 1/2	1 3/4	2
Per Gross, \$6 50	8 25	9 50	11 75	13 50

## BRASS SCREW KNOBS.



Full Size Cut of 9/16 Inch.

## No. 105. Cast Brass.

Inch, 3/8	1/2	9/16	5/8	3/4
Per Gross, \$3 60	3 80	4 20	4 80	6 20



# Picture Nails.

FULL SIZE ILLUSTRATIONS.



No. 3.



Nos. 9 and 09.



No. 25.



No. 28.



No. 100.



Nos. 41 and 42.



No. 48.

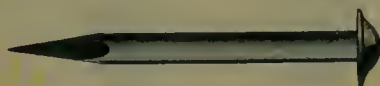


No. 56.

## PRICES AND DESCRIPTIONS.

Nos.		Per Gross.	Nos.		Per Gross.
3.	White Porcelain Center, Fancy Rim	\$5 00	28.	Crystal Glass Center, Fancy Burnished Rim	\$ 5 00
3.	Ruby Glass " " "	5 00	41.	Turquoise Star, Glass Center	6 00
3.	Blue " " "	5 00	42.	Amber " " "	6 00
9.	White Porcelain Center, Plain Brass Rim	2 80	48.	Ruby Star Center, Fancy Rim	14 00
09.	" " " Silver "	2 80	56.	" " "	28 00
25.	Crystal Center, Rose Pattern	6 00	100.	Crystal Glass Center, Plain Rim	4 00

## Brass Head Picture Nails.

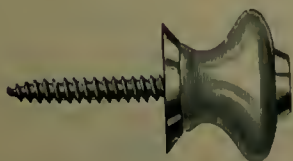


Full Size Cut of 2 Inch

### No. 4. Wrought Nail. Polished.

Inch,	1	1 1/4	1 1/2	1 3/4	2	2 1/2	3
Per Gross,	\$1 05	1 10	1 25	1 40	1 80	2 15	3 00

## Porcelain Picture Knobs.



Full Size Cut of 3/4 Inch.



Full Size Cut of 1 1/4 Inch

### No. 90. Long Tinned Screw.

Silver-Plated Base under Screw Head and under Knob.

Inch,	3/8	1	1 1/2
Per Gross,	\$5 60	5 90	6 20

Put up in 14 Gross Boxes.

## Tassel Hooks.

### PRICES AND DESCRIPTIONS.

Nos.		Per Gross.
<b>139.</b>	All Gilt, Fancy Hook . . . . .	\$17 00
<b>140.</b>	All Silver-Plated, Fancy Hook . . . . .	20 00
<b>142.</b>	All Silver-Plated, Porcelain Knob, White or Ruby, 26 50	



Full Size Cut of Nos. 139 and 140.



Full Size Cut of No. 142.

## Molding Hooks.

### PRICES AND DESCRIPTIONS.

#### Burnished.

Nos.		Per Gross.
<b>320.</b>	For 1 Inch Molding, Crystal Glass Head .	\$12 00
<b>300.</b>	" 1½ " " " " " " .	14 00
<b>310.</b>	" 1½ " " Medallion " " .	16 00

#### Unburnished.

Nos.		Per Gross.
<b>050.</b>	For 1 Inch Molding . . . . .	\$3 50
<b>040.</b>	" 1¼ " " " " " " .	4 50
<b>030.</b>	" 1½ " " " " " " .	4 50



Cut of No. 320 for 1 Inch Molding.



Full Size Cut of No. 050.

## Braided Wire



Warranted 25 Yards

## Picture Cord.

in a Coil.

Nos. **0**  
Per Dozen Coils, \$1 20

**1**  
1 80

### Tinned.

**2**  
2 88

**3**  
3 60

**4**  
4 80

**5**  
6 00

### Gilt.

Nos. **10**  
Per Dozen Coils, \$3 60

**11**  
6 00

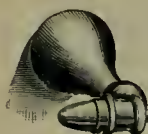
**12**  
8 40

**13**  
12 00

**14**  
15 60

**15**  
20 40

## Towel and Splasher Holders.



Patented.

### Nickel-Plated.

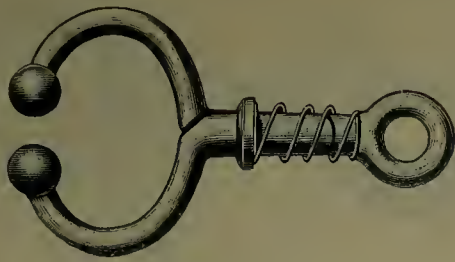
No. **10.** Splasher Holder, 33 Inch . . . . .

Per Dozen, \$6 00

No. **14.** Towel " 14 " . . . . .

" " 5 25

## Cattle Leaders.



Half Size Cut of No. 52.

## Ox Bow Pins.



Half Size Cut of No. 72.

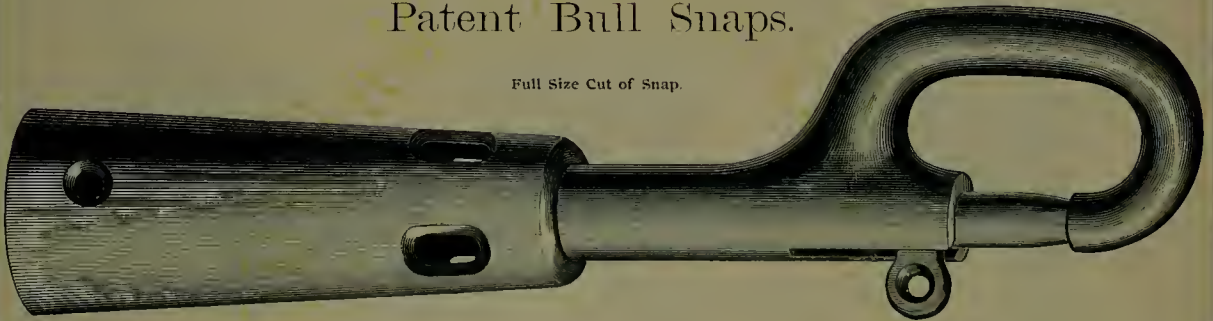
"Welton's" Patent. Malleable Iron.

Japanned.

No. 51.	Brass Wire Spring	Per Dozen, \$2 10	No. 71.	Steel Spring, 1 3/4 Inch	Per Gross, \$17 00
No. 52.	" " "	" " 2 30	No. 72.	" " 2 " "	" " 18 00

## Patent Bull Snaps.

Full Size Cut of Snap.



Price, Complete, without Handle . . . . . Per Dozen, \$10 00



Showing the Bull Snap attached to Handle.

## Bull Rings.

Polished Steel.

BULL RINGS.

No. 10.	2 Inch	Per Dozen, \$4 50
No. 11.	2 1/2 "	" " 5 00
No. 12.	3 "	" " 5 25

CAST BRASS OX BALLS.



Polished Copper.

No. 20.	2 Inch	Per Dozen, \$6 00
No. 21.	2 1/2 "	" " 7 00
No. 22.	3 "	" " 8 00



No. 4.

## Cast Brass Ox Balls.

Heavy Octagon.

Half Size Cut of Nos. 12 and 22.

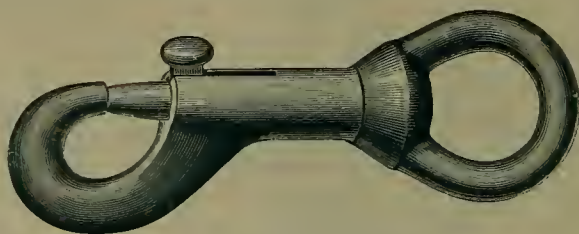
Nos.	1	2	3	4
Per Gross,	\$10 50	12 00	14 00	18 00



## Patent Covered Spring Harness Snaps.



Full Size Cut of No. 114.



Full Size Cut of No. 161.

Loop Eye.      Tinned.

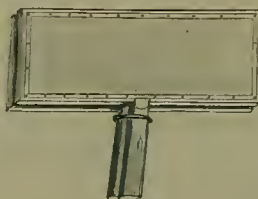
Swivel Eye.

Nos.	110 1/2	111	112	114	115	116	117	118	161
Size of Eye,	3/8	3/4	7/8	1	1 1/4	1 1/2	1 3/4	2	3/4 Inch.
Per Gross,	\$7 50	8 00	9 00	9 50	15 50	17 50	19 50	21 00	\$14 00

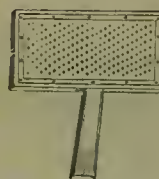
## Horse and Wool Cards.



Large Horse Cards, Nos. 1 and 2.



Wool.



Small Horse Cards, Nos. 3 and 4.

### Horse Cards.      Coppered Wire.

No. 1. Large, Bound	Per Single Dozen, \$0 90	No. 3. Small, Bound	Per Single Dozen, \$0 80
No. 2. " Not Bound	" " " 0 85	No. 4. " Not Bound	" " " 0 75

### Wool Cards.

No. S A. Large Size	Per Dozen Pairs, \$2 70	No. S B. Medium Size	Per Dozen Pairs, \$2 50
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## "Hill's" Hog Goods.



Ringers.



Holders.



Rings. Copper Wire.

Japanned	Per Dozen, \$6 50	Japanned	Per Dozen, \$6 50	Nos. 1, 2 and 3	Per Box 100, \$0 30
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## "Hill's" Calf Weaners.

ADJUSTABLE WITH THUMB SCREW.

Tinned, Malleable Iron.



Cut of No. 2.

No. 1. Small, 4 Prongs	Per Dozen, \$3 50
No. 2. Large, 7 " "	" " 4 50

# Curry Combs.

249



Nos. 0 and 21.



Nos. 50 and 51.



Nos. 60 and 61.



Nos. 222 and 1222.



No. 341.



No. 451.

## PRICES AND DESCRIPTIONS.

### Open Back.

No. 0. 6 Bars, Japanned

Per Dozen, \$0 80

### Open Back, Solid Frame.

No. 21. 6 Bars, Tinned

Per Dozen, \$1 80

### Close Back.

No. 50. 6 Bars, Japanned

Per Dozen, \$2 25

No. 51. 6 " Tinned

" " 2 50

### Horse Shoe Pattern, Open Back.

No. 60. 8 Bars, Japanned

Per Dozen, \$3 35

No. 61. 8 " Tinned

" " 3 90

### Solid Back, Trowel Shank.

No. 222. 8 Bars, Japanned

Per Dozen, \$2 10

No. 1222. 8 " Tinned

" " 2 50

### Heavy, Extra Finish, Trowel Shank.

No. 341. 8 Bars, Tinned

Per Dozen, \$4 25

### With Mane Comb, Close Back, Trowel Shank.

No. 451. 6 Bars, and Mane Comb, Tinned

Per Dozen, \$2 50

# "Newhouse's" Genuine Steel Traps.

EVERY TRAP WARRANTED.

Universally known as superior to any and all other Traps, in strength, lightness and durability.



**No. 0. Rat Trap;** spread of jaws  $3\frac{1}{2}$  inches; strong enough to hold Muskrat.

With Chain	Per Dozen, \$4 25
No " "	" " 3 25



**No. 1. Muskrat Trap;** spread of jaws 4 inches; adapted to catching the smaller fur-bearing animals.

With Chain	Per Dozen, \$4 65
No " "	" " 3 50



**No. 1½. Mink Trap;** spread of jaws  $4\frac{3}{8}$  inches; strong enough to hold the Fox or Fisher.

With Chain	Per Dozen, \$7 50
No " "	" " 6 00



**No. 2. Fox Trap,** with double spring; spread of jaws,  $4\frac{3}{4}$  inches; strong enough to hold an Otter.

With Chain	Per Dozen, \$10 50
No " "	" " 9 00



**No. 3. Otter Trap;** double spring; spread of jaws,  $5\frac{1}{2}$  inches.

With Chain	Per Dozen, \$13 75
No " "	" " 12 00



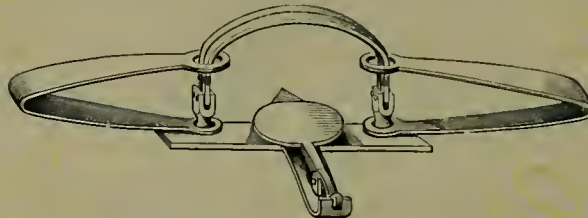
**No. 4. Beaver Trap,** double spring; spread of jaws,  $6\frac{1}{2}$  inches.

With Chain	Per Dozen, \$16 50
No " "	" " 14 50



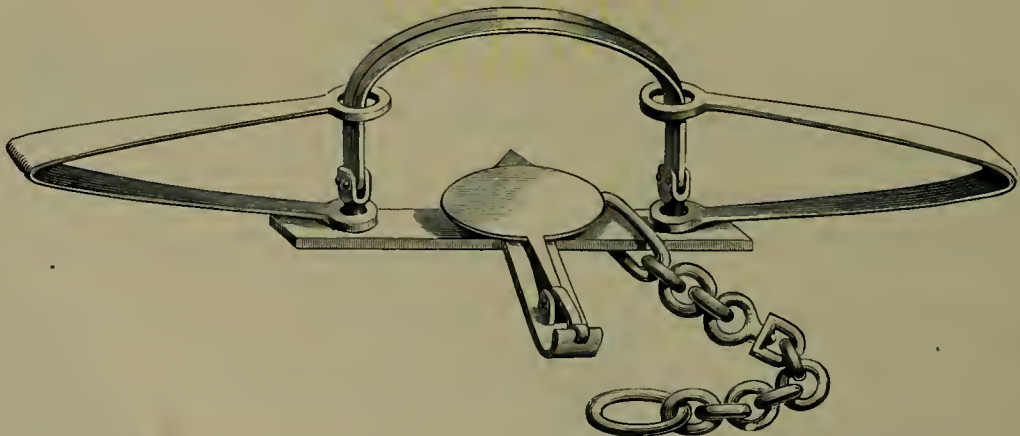
**No. 4. Deer Trap,** double spring; spread of jaws,  $6\frac{1}{2}$  inches.

With Chain	Per Dozen, \$18 50
No " "	" " 16 50



**No. 5. Bear Trap;** spread of jaws,  $11\frac{3}{4}$  inches; weight of each spring, 2 lbs 10 oz.; weight of Trap, 17 lbs; suitable for taking the common Black Bear.

With Chain	Per Dozen, \$140 00
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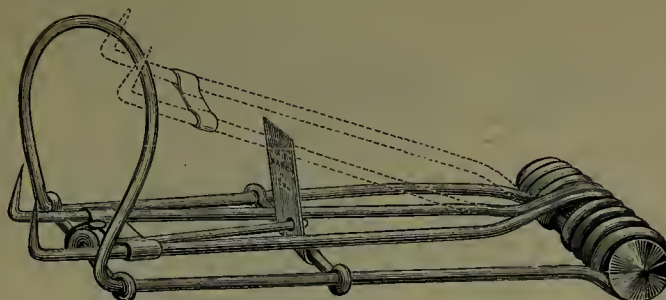


**No. 6. Bear Trap,** large size; spread of jaws, 16 inches; weight of each spring, 6 lbs 10 oz.; weight of Trap with chain, 42 lbs; made throughout, except the pan, of wrought iron and steel—strong enough to hold the Moose or the Grizzly Bear.

With Chain	Per Dozen, \$280 00
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## The "CV" Gopher Trap.



NEVER FAILS TO CATCH AND KILL.

**DIRECTIONS FOR SETTING.**—Scoop out the gopher hole; then set the Trap by pressing down the spring, and placing the lever, A, over the fulcrum, B, and into the pin-hole on the pan, C. Then shove the Trap well into the gopher hole, covering up the points thoroughly. Set lightly, so that the dirt, when shoved out by the gopher, will spring the Trap.

Price . . . . . Per Dozen, \$2 50

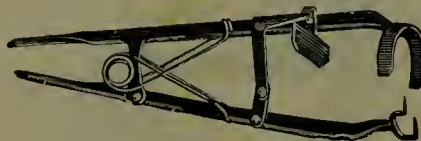
## The "Scorpion" Gopher Trap.



THIS CUT SHOWS THE TRAP PARTLY CLOSED.

Price . . . . . Per Dozen, \$2 50

## "California" Gopher Trap.



Price . . . . . Per Dozen, \$8 00

## The "Excelsior" Gopher Trap.

PATENT APPLIED FOR.



THIS CUT SHOWS THE TRAP SET.

Place the Trap well in the hole, horizontally, and see that the plate is free from the sides of the hole, then place a stake through the back of the Trap, or attach a cord, so that the gopher cannot drag the Trap into the hole when caught.

Price . . . . . Per Dozen, \$5 00



## Wood Mouse Traps.

Holes, 2	3	4	5	6
Per Dozen, \$0 60	0 90	1 20	1 50	1 80

## "Mrs. Potts" Sad-Irons.



Set consists of 3 Irons, 1 Handle, 1 Stand.

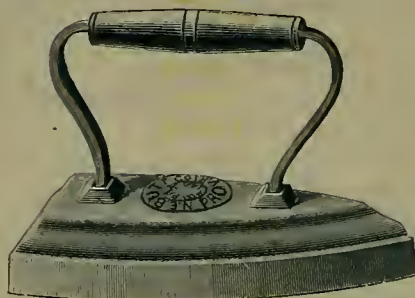
Double Pointed.

No. 50. Nickel-Plated	Per Dozen Sets, \$30 00
No. 55. Plain Polished	" " " 24 00
Extra Handles	

Flat Back.

No. 60. Nickel-Plated	Per Dozen Sets, \$30 00
No. 65. Plain Polished	" " " 24 00
Per Dozen, \$4 00	

Sad-Irons.



Sad Irons, 4 to 10 lbs, Round or Sharp Points . Per lb.

Polishing Irons.



New England Polishing Irons, Nos. 1, 2 and 3 . Per lb.

Toilet Irons.



Charcoal Irons.



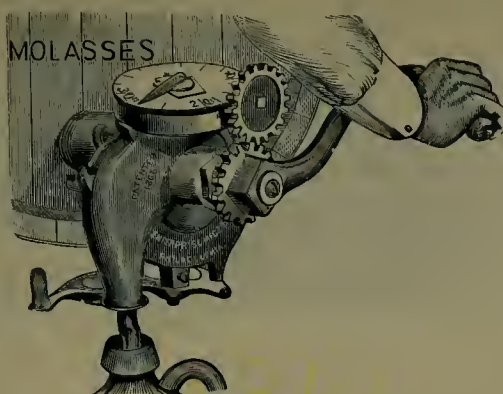
New Polishing Irons.



SELF-HEATING.

Nickel-Plated	Per Dozen, \$9 00	Laundry Size	Per Dozen, \$12 00	Per Dozen	\$5 00
Polished	" " 7 00	Tailors' " "	" " 24 00		

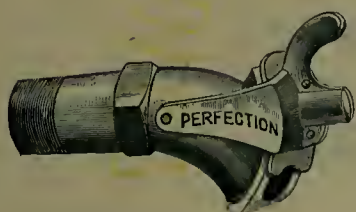
## “Enterprise” Self-Measuring Faucets.



For Molasses, Varnish, Thick Oils, Tar, etc.

Per Dozen, \$36 00

## “Perfection” Molasses Gates.



OPENED.



CLOSED.

Sizes, Inch,  $\frac{1}{2}$   
Per Dozen, \$9 50

$\frac{3}{4}$

12 00

1

14 00

$1\frac{1}{4}$

16 50

$1\frac{1}{2}$

20 00

2

24 00

3

30 00

## “Stebbins” Molasses Gates.



Nos. 1

Per Dozen, \$7 00

2

8 00

3

9 00

4

10 00

5

12 00

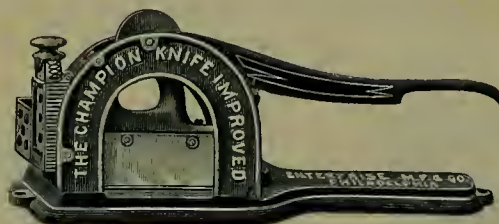


## Tobacco Cutters.



P. S. and W. Japaned

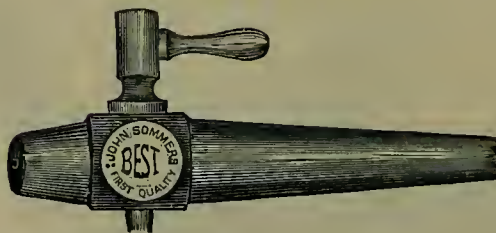
Per Dozen, \$14 00



Enterprise No. 1

Per Dozen, \$18 00

## Cork Lined Wood Faucets.

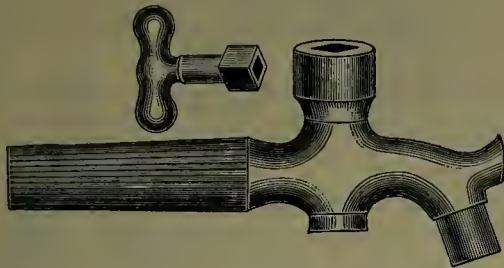


MADE OF SELECTED CORK AND MAPLE WOOD.

Regular Sizes.

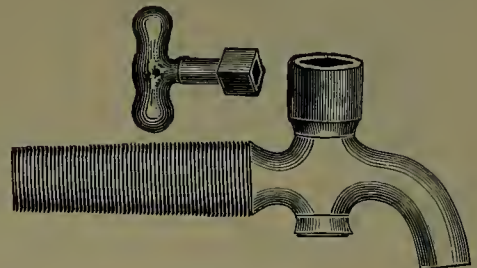
Nos.	0	2	4	6	8
Length, Inches,	6	7	8	9	10
Per Dozen, \$	0 75	0 75	1 00	1 25	1 50

## Lock Cock, to Drive.



FINISHED.

## Lock Cock, to Screw.



FINISHED.

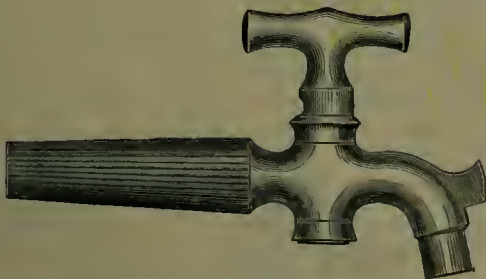
## English Pattern.

SIZES.	Inch, $\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{4}$
Lock Cocks, to Drive, per Dozen,	\$8 50	12 00	16 50	20 00
" " " Screw, " "	\$9 00	13 00	18 00	22 00

## Heavy or New Pattern.

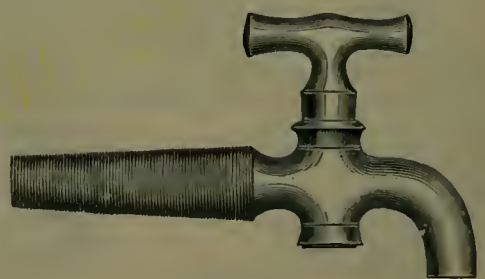
SIZES.	Inch, $\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{4}$
Heavy Lock Cocks, to Drive, per Dozen,	\$15 00	19 00	23 00	27 00
" " " Screw, " "	\$15 50	20 00	24 50	29 00

## Racking Cock, to Drive.



FINISHED.

## Racking Cock, to Screw.



FINISHED.

## English Pattern.

SIZES.	Inch, $\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{4}$
Racking Cocks, to Drive, per Dozen,	\$7 50	10 00	14 50	17 00
" " " Screw, " "	\$8 00	11 00	16 00	19 00

## California Beer Cocks.

Heavy, Full Size

Per Dozen, \$30 00

## Oilers, Assorted.

### "Chase's" Oilers.

	Nos.	0	1	1½	2	3	4	5	6
Tin, per Dozen, \$		1 25	1 25	1 35	1 50	1 75	2 25	3 00	4 00
Zinc, " "		1 00	1 25	1 35	1 50	1 75	2 25	3 00	4 00
Brass, " "		2 25	2 50	2 75	3 00	3 50	4 50	5 75	7 00
Copper, " "		2 25	2 50	2 75	3 00	3 50	4 50	5 75	7 50

Extra for Long Tubes, add to above List \$ per Dozen.

### "Paragon" Oilers.

	Nos.	0	1	1½	2	3	4	5	6
Copper, per Dozen, \$		2 75	3 25	3 75	4 00	4 75	5 50	6 75	8 00

### Malleable Iron Oilers.

	Nos.	1	2	3
Per Dozen, \$		10 00	11 00	12 00



"CHASE'S."



"PARAGON."

### Extra Spouts for "Chase's" Oilers.



BRASS.



SHORT. Straight

Per Dozen, \$

LONG. Straight

Per Dozen, \$

" Bent

" "

### BICYCLE OILERS.

### "HAUCK'S" PATENT AUTOMATIC OILERS.

### SEWING MACHINE OILERS.

### FORCE OILERS.



### PRICES.

#### Bicycle Oilers.

No. 169. Tin	Per Dozen, \$	1 75
No. 169. Nickel-Plated	" "	2 25
No. 10. Gilt	" "	1 80

#### "Hauck's" Patent Automatic Oilers.

No. 1. Brass	Per Dozen, \$	5 00
No. 2. " "	" "	6 00
No. 3. " "	" "	7 00

#### Sewing Machine Oilers.

Zinc, 1½ Inch Diameter, Brass Screw	Per Dozen, \$	0 90
" 2½ " " " " "	" "	1 00
No. 30. Gilt	" "	2 50

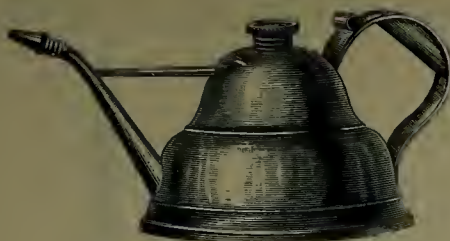
#### Force Oilers.

No. 760	Per Dozen, \$	75
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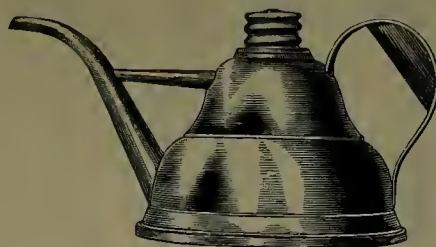


# Oilers, Assorted.

257



ZINC OIL FILLER.



COPPER OIL FILLER.

## Copper Oil Fillers.

Long Tube, 1 Pint		Per Dozen, \$15 00
Short " 1 "		" " 12 00
Long " 1 Quart		" " 24 00
Short " 1 "		" " 21 00

## Zinc Oil Fillers.

Screw Stop on Spout.

Sizes, 1 Pint.	1 1/2 Pint.	1 Quart.
Per Dozen, \$4 00	5 00	6 00

## Engineer's Tray and Oilers.



### PRICES.

## Engineer's Tray and Oilers.

BRASS.

Sets of 5 Pieces (Tray as a Piece)	Per Set, \$6 00
" " 6 " ( " " " )	" " 8 00

PLATED.

Sets of 5 Pieces (Tray as a Piece)	Per Set, \$ 8 00
" " 6 " ( " " " )	" " 10 00

## Engineer's Drip Oilers.

TIN.

No. 631. 1 Pint	Per Dozen, \$3 75
No. 743. 1 1/2 "	" " 4 25
No. 737. 1 Quart	" " 5 50

## Locomotive Oilers.

BRASS.

1 Pint	Each, \$3 50
2 "	" 4 00
3 "	" 5 50

ENGINEER'S DRIP OILERS.



LOCOMOTIVE OILERS.

Draper's Steel and Brass Hand and Railroad Oilers.



**RAILROAD OILERS.**  
Nos. 10 and 11, Steel.



**HAND.**  
No. 12, Steel. No. 120, Brass.



**HAND.**  
No. 13, Steel. No. 130, Brass.



**HAND.**  
No. 14, Steel. No. 140, Brass.



**HAND.**  
No. 16, Steel. No. 160, Brass.

## Steel Hand Oilers.

[illegible]

### Brass Hand Oilers.

[illegible]

## Steel Railroad Oilers.

No. 10.	Pint,	3¾	Inch Diameter,	5	Inches High,	12	Inch Nozzle		Per Dozen,	\$20 00
No. 11.	Quart,	4¼	"	"	6	"	"	18	"	25 75

# Draper's Brass Oilers and Brass and Nickel Sets.



ENGINEER'S BRASS FILLER.

Screw Top.



ENGINEER'S BRASS AND NICKEL SETS.



RAILROAD OILERS.

Nos. 17 and 18. Brass.

## Engineer's Brass and Nickel Sets.

No. 19.	5 Pieces, Brass, with Tray	Per Set, \$ 9 50
No. 20.	6 " " " "	" " 14 25
No. 21.	5 " Nickel, " "	" " 12 25
No. 22.	6 " " " "	" " 17 25

## Brass Railroad Oilers.

No. 17.	Pint, 3 3/8 Inch Diameter, 5 Inches High, 12 Inch Nozzle	Per Dozen, \$31 30
No. 18.	Quart, 4 1/4 " " 6 " " 18 " "	" " 36 00

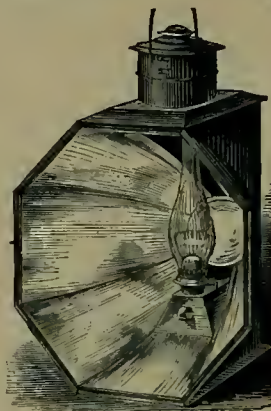
## Engineer's Brass Fillers.

No. 23.	Pint, 4 1/4 Inch Diameter, 3 1/2 Inches High	Per Dozen, \$43 00
No. 24.	Quart, 5 " " 5 " " "	" " 55 00



# Patent Sectional Parabolic Head Light.

THE CHEAPEST IN THE MARKET.



It has been in use for the past nine years, and given general satisfaction. It is well adapted for lighting Mills, Mines, Hoisting Works, Warehouses, Streets, etc.

The front view of the Reflector is of octagonal shape; it is corrugated to diffuse the light, and to prevent dazzling the eyes. The vertical section is a parabolic curve with a small focal reflector. The reservoir burner and chimney are inserted through the lower and top sections of the Reflector. The body or outer casing of the Head Light has been modified from the above cut, and is now made square, thus the glass in front is a square piece, and is set in the door frame, and can easily be replaced.

## PRICES AND DESCRIPTION.

No. 5.	12 Inches Wide in Front, 8 Inches Deep, 19 Inches High, 2 Flat or Argand Burners	Each, \$ 5 25
No. 6.	16 " " " " 11 " " 24 " " 3 " " "	" 10 50

# Patent Hydraulic Mining and Locomotive Head Light.



The best in the market. It is provided with a new style of Head Light burner, which concentrates the flame to a white intense light—of great importance in a true parabolic reflector. The chimney extends far below the flame, with nothing to intercept the rays, while the Eastern Head Light burner was a black button in the very focus of the reflector, also a cone, and the chimney-holder partly covering the flame.

The reflector is spun out of one piece of silver-plated metal, and is a true parabola, which is the only shape that will reflect all the rays in parallel lines—which is required in order to have a strong light at a distance of two or three hundred feet—as is required by hydraulic mining. But as light is often required to be strongest near the top of a gravel bank, in order to save the expense or inconvenience of a trestle work to raise the lamp, this patent Reflector has a regulating attachment which allows the light to be reflected up or down, as desired, while the oil reservoir and burner will always stand on the same level.

The glass in front is held between two brass rings, the inner one removable, so that the glass may be replaced without soldering or plastering. These brass rings also serve to heat the glass equally all around. A place is also provided to receive a square piece of glass in case a round one is not at hand. In order to make it convenient to ship to retired mining places, they are expressly built as compact as possible, thus the 20½ inch by 36 x 16 gives a more brilliant light, having the same size burner—than the large, bulky, heavy and expensive old style locomotive head light.

## PRICES AND DESCRIPTION.

Width in Front 20½ Inches, 36 Inches High, 16 Inches Deep, Weighs 42 lbs, Wick, 1¼ Inch diam., Flame 3¼ Inch High,	Each, \$50 00
Consumes 1 Gallon Oil in 24 Hours	
Width in Front 17 Inches, 30 Inches High, 14 Inches Deep, Weighs 34 lbs, Wick, 1¾ Inch diam., Flame 3½ Inch High,	Each, 40 00
Consumes 1 Gallon Oil in 36 Hours	
Width in Front 14½ Inches, 25 Inches High, 12 Inches Deep, Weighs 25 lbs, Wick, 1 Inch diam., Flame 3¼ Inch High,	Each, 30 00
Consumes 1 Gallon Oil in 48 Hours	

# Central Reflector Lamps.

261

Patented Sept. 6, 1879: Re-issued Feb. 8, 1881.



No. 3.



No. 4.

These Lamps have now been in use for the past ten years all over the Pacific Coast, in Mills, Mines, Hoisting Works, Stores, Warehouses, Railroad Stations, Wharves, Stables, Yards, Streets, etc., and have given the best satisfaction, both in brilliancy and economy. They are made of various styles, but the two illustrated above are the most in use, one being tapering toward the bottom, while the other is square down to the bottom. Both have the peculiar arched tapering roof over each side and glass, also the curved corrugated Reflectors, the difference in the two being in the construction of said Reflectors. The Tapering Lamp is made to reflect down and all around that main portion of the light which otherwise would go up, and will leave no shadow underneath; and such light is most desirable for working by. The Square Lamp has the Reflectors so constructed as to reflect the rays of light almost parallel in every direction. The Reflectors are corrugated to diffuse the light and prevent the dazzling of the eyes.

## PRICES AND DESCRIPTION.

No. 3.	13 x 18, Tapering Central Reflector Lamp, with No. 2 Flat or Argand Burner	Each, \$5 00
No. 4.	12 x 20, Square " " " " No. 2 " " " "	" 6 00

# Patent Side Lanterns.



Mostly used to hang against the wall, but all having wire handles. The smaller sizes make a powerful hand lantern.

These Lamps are of the cheapest patterns, have glass on three sides and a tin back on the fourth, provided with a silvered glass reflector. The glasses are secured by simply setting the lower edge into the groove prepared for it at the bottom of the Lantern, while just above, on the top, are removable hook strips, which are then bent over the glasses. These patent hook strips can be replaced and any number added without soldering or other skillful labor. They may be bent short or long; will not tear off, and will allow all the elasticity required to give toward the glass to let it set free from strain and to allow it to expand.

The Patent Chimney Top is also of great importance in a lantern. It is made removable not only for cleaning the soot which might gather in the chimney top and would stop the draft, but also for the regulating of said draft. Thus when used in a windy place it should be screwed down so that the wind going through the perforated border of the outer chimney will strike against the collar or contracted end of the inner chimney, and will then force its way upward and out on the opposite side, but when the lantern is used in doors or under shelter, it is best to have the top raised up to allow more ventilation.

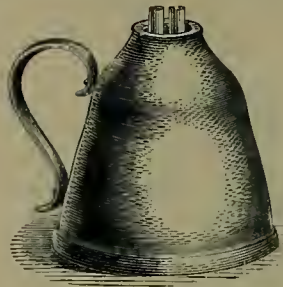
## PRICES AND DESCRIPTION.

No. 1.	With 6 x 10 Glass, 16 Inches High over all, with No. 1 Burner and 5 Inch Reflector	Each, \$2 25
No. 2.	" 8 x 12 " 20 " " " " " No. 2 " " 7 " "	" 3 00
No. 7.	" 10 x 14 " 22 " " " " " No. 2 " " 9 " "	" 3 75
No. 8.	" 12 x 16 " 24 " " " " " No. 3 " " 11 " "	" 5 00

## Triangle Side Lamps.

No. 9.	With 10 x 12 Glass, 20 Inches High over all, with No. 2 Burner and 7 Inch Reflector	Each, \$3 00
No. 10.	" 12 x 16 " 24 " " " " " No. 3 " " 9 " "	" 4 50

## Hand Lamps.



Engineer's Hand Lamp.

Malleable Iron . . . . . Per Dozen, \$7 50

## Lanterns.



No. 3. Buckeye.



No. 4. Buckeye.

With Globe and Chimney . . . . . Per Dozen, \$10 00 | With Globe and Chimney . . . . . Per Dozen, \$9 00

## Nested Globes and Chimneys for Buckeye Lanterns.

No. 3 . . . . . Per Dozen, \$3 00  
No. 4 . . . . . " " 2 50



Railroad Lantern.

No. 390. With Double Guard . . . . . Per Dozen, \$12 00



## Lanterns.



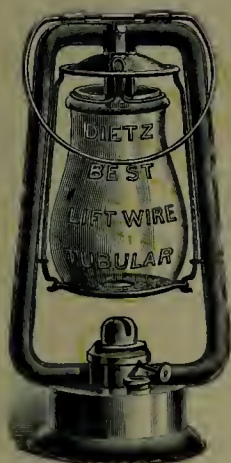
Police Lantern for Sperm Oil.

2 $\frac{1}{4}$  Inch Diam., Bull's Eye

Per Dozen, \$9 00

3 Inch Diam., Bull's Eye

Per Dozen, \$10 00



No. 0. Tubular.



No. 15. Tubular, for Dash Board.

No. 0. Tubular, Safety Lift, with Guards . Per Dozen, \$10 50

No. 15. Tubular, Fitted for Dash Board . Per Dozen, \$18 00

Globes for Nos. 0 and 15

Per Dozen, \$1 50

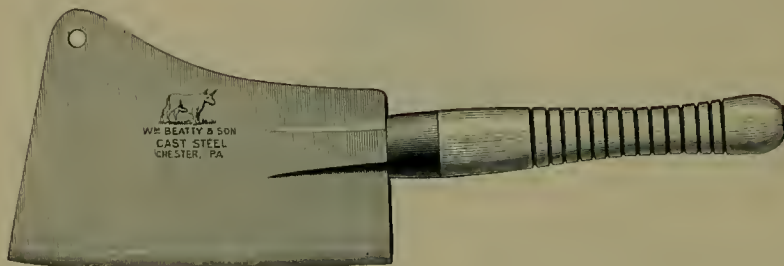
Burner is No. 1 Convex.  $\frac{5}{8}$  Inch Wick.

The "Racket."

Brass Mounted, for House Use

Per Dozen, \$8 00

## "Wm. Beatty & Son's" Choppers and Cleavers.



Cut of Cleaver.

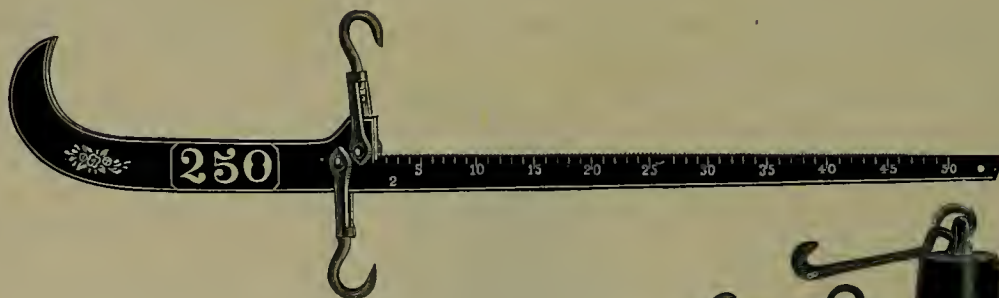
### Choppers.

Nos.	00	0	1	2
Per Dozen, \$11 50		13 50	15 00	16 50

### Cleavers.

Nos.	00	0	1	2	3	4	5
Per Dozen, \$12 00		14 00	16 50	19 00	21 50	24 00	27 00

### Scale Beams.

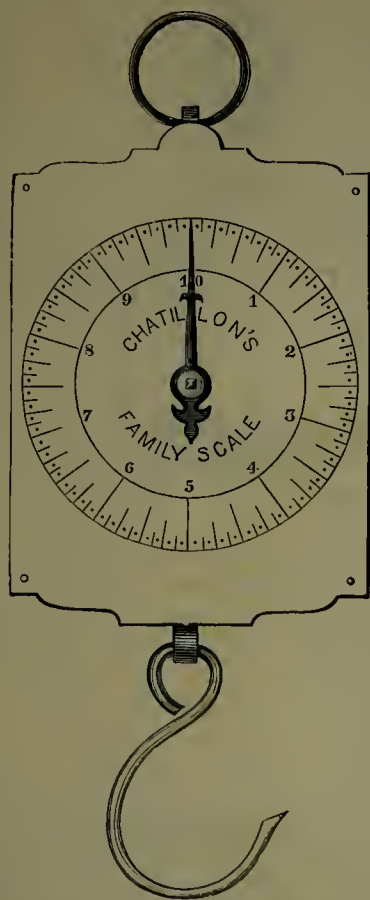


Complete with Poises.

### Japanned Finish.

To Weigh, lbs.	150	200	300	400	500	600
Each, \$1 50		1 60	2 10	2 90	3 50	4 00

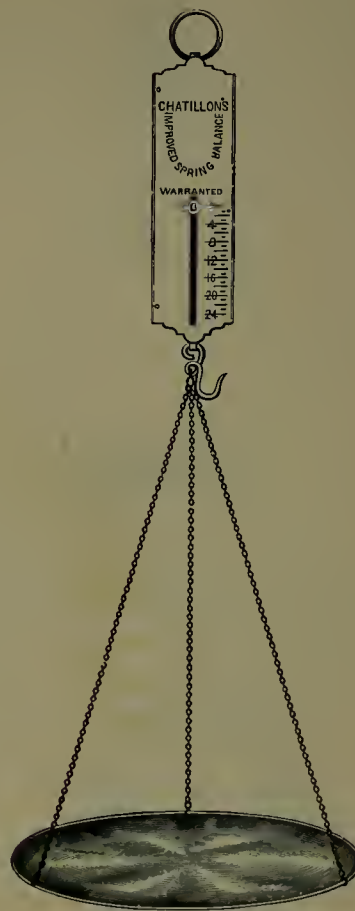
# "Chatillon's" Spring Balances.



No. 240. Family Scale.



No. 40. Straight, with Hook.



No. 41. Straight, with Round Pan.

## Straight, with Hook.

No. 20.	To Weigh 24 lbs, by $\frac{1}{2}$ lb	Per Dozen, \$ 1 60
No. 40.	" " 24 " " $\frac{1}{2}$ " heavy	" " 4 00
No. 30.	" " 48 " " I "	" " 3 50
No. 70.	" " 50 " " I " heavy	" " 10 00

## Straight, with Round Pan.

No. 41.	To Weigh 24 lbs, by $\frac{1}{2}$ lb	Per Dozen, \$ 7 00
No. 71.	" " 50 " " I "	" " 20 00

## Family Scale, Round Dial.

No. 240.	To Weigh 20 lbs, by 1 oz	Per Dozen, \$42 00
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## Butcher's Scales.



"A"

"A" Pattern, with Circular Dial,

GLASS FACE.

Marbleized Pan, 2 Bows, 60 lbs	Each, \$10 75
Porcelain " 2 " 60 "	" 10 75
Tin " 2 " 60 "	" 8 50



"C"

California Pattern, Black Walnut Case

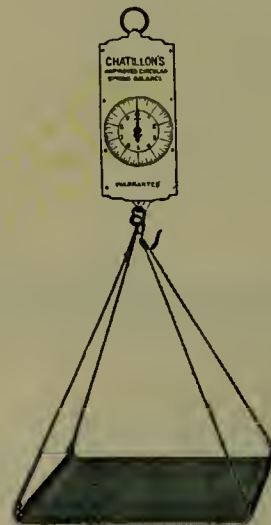
GLASS FACE.

Copper Pan, 2 Heavy Brass Bows, 60 lbs	Each, \$20 00
Marble " 2 " " 120 "	" 25 00



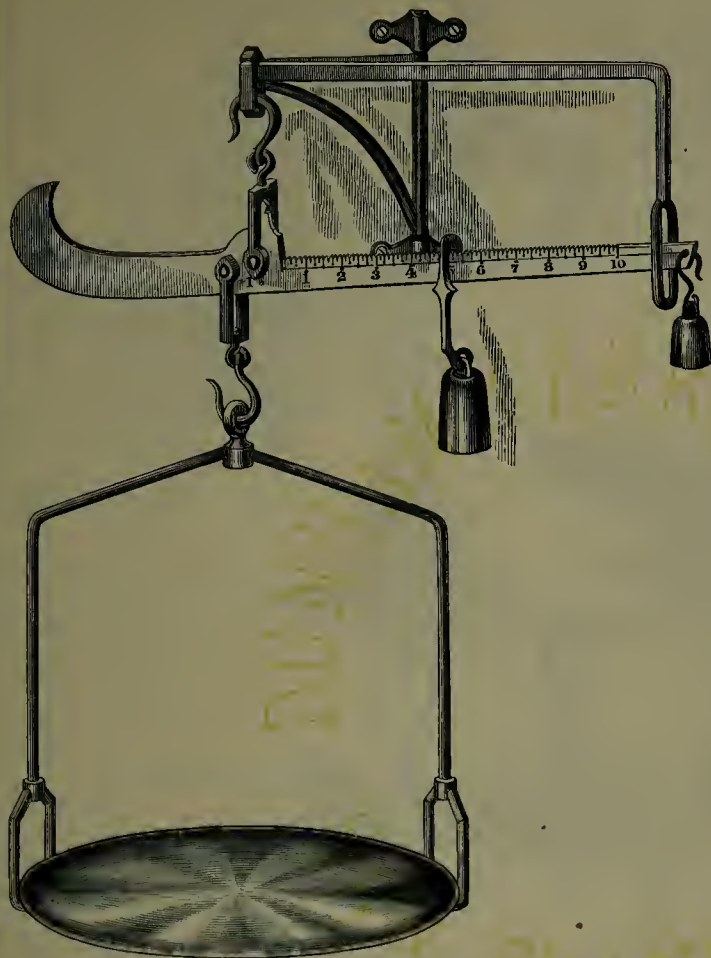
"B" Pattern, with Plain Open Dial.

Round Pan and Hook, 3 Chains, 30 lbs	Each, \$5 50
Square " " " 4 " 30 "	" 6 00



## Butcher's Scales.

## BOSTON MARKET BEAM SCALE.



## Boston Market Beam Scale.

Tinned Copper Pan,

Two Heavy Brass Bows,

Beams and Weights,

Nickel-Plated.

125 lbs . . . . . Each, \$25 00

## CIRCULAR SPRING BALANCES.

## Circular Spring Balances.

Large Circular Dial, Glass Face, Porcelain Enameled Pans,

Nickel-Silver, Strengthened Edges,

Nickel-Plated Bows.

No. 4266 E. 30 lbs, by 1 oz., 13 inch pans . . . . . Each, \$10 00

No. 4276 E. 60 " " 2 " 13 " " . . . . . " 12 00

Nos. 4266 E and 4276 E.



## Tea and Counter Scales.

## TEA SCALES.



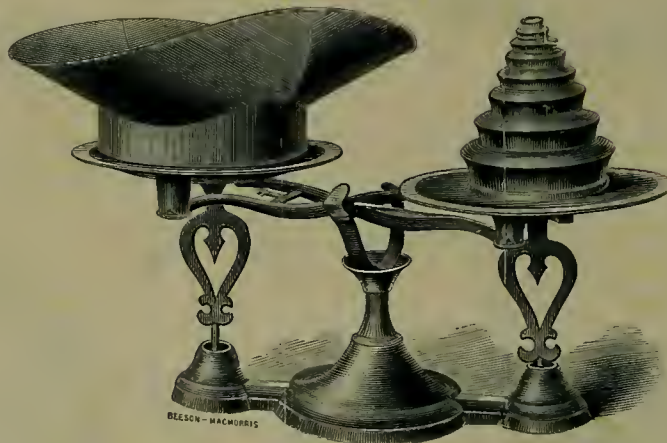
No. 1. Japped, with Tin Scoop,  $\frac{1}{2}$  oz. to 4 lbs .

Per Dozen, \$15 00

No. 4. Painted Red, with Brass Scoop,  $\frac{1}{4}$  oz. to 4 lbs

" " 24 00

## "HATCH'S" COUNTER SCALES.



No. 1. Japped, with Tin Scoop,  $\frac{1}{2}$  oz. to 8 lbs

Per Dozen, \$24 00

## The Standard Union Counter Scales.



Japped, with Tin Scoop, Single Beam, Steel Bearings,  $\frac{1}{2}$  oz. to 240 lbs

Each, \$5 00



"NOVELTY"

## Family Scales.



With Platform and Scoop.

To Weigh 12 lbs, by ounces . . . . . Each, \$2 50

"UNITED STATES"

## Family Scales.



With Scoop.

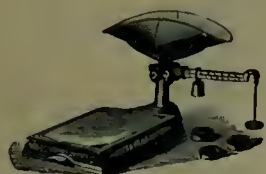
No. 1.	10 lb Dial	Each, \$4 00
No. 2.	20 " "	" 5 00
No. 3.	40 " "	" 6 00

## "Fairbank's" Scales.

UNION OR FAMILY SCALES.

PORTABLE PLATFORM SCALES.

PORTABLE PLATFORM SCALES.



## Union or Family Scales.

With Single Beam.

Capacity, $\frac{1}{2}$ oz. to 240 lbs, with Tin Scoop	Each, \$14 00
" $\frac{1}{2}$ " " 240 " " Brass "	" 15 00

With Double Beam.

Capacity, $\frac{1}{2}$ oz. to 240 lbs, with Tin Scoop	Each, \$15 00
" $\frac{1}{2}$ " " 240 " " Brass "	" 16 00

## Portable Platform Scales.

With Wheels.

No.	Capacity,	Platform,	Each.
No. 7.	2,000 lbs.	30 x 24 In.	\$80 00
No. 8.	" 1,600 "	" 30 x 23 "	70 00
No. 9.	" 1,400 "	" 28 x 21 "	58 00
No. 10.	" 1,200 "	" 28 x 20 "	50 00
No. 10 $\frac{1}{2}$ .	" 900 "	" 26 x 17 "	43 00
No. 11.	" 600 "	" 25 x 16 "	33 00
No. 11 $\frac{1}{2}$ .	" 400 "	" 21 x 15 "	26 00

With Wheels and Drop Lever.

No.	Capacity,	Platform,	Each.
No. 7.	2,500 lbs.	30 x 24 In.	\$94 00
No. 8.	" 2,000 "	" 30 x 23 "	82 00
No. 9.	" 1,500 "	" 28 x 21 "	70 00
No. 10.	" 1,200 "	" 28 x 20 "	60 00
No. 10 $\frac{1}{2}$ .	" 1,000 "	" 26 x 17 "	52 00

## Glue Pots.



TIN.



TINNED AND ENAMELED.



THE "HANDY."

### Tin Glue Pots.

Heated with Coal Oil.

Medium										Per Dozen, \$15 00
Large										" " 18 00

### Tinned and Enameled Glue Pots.

Nos.	000	00	0	1	2	3	4	5	6
Per Dozen, \$5 00		5 50	6 00	6 75	8 40	10 26	12 42	14 58	16 94

### The "Handy" Glue Pot.

For Family Use										Per Dozen, \$6 00
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## "Le Page's" Liquid Glue.



CARRIAGE AND MANUFACTURERS' GLUE, IN TIN CANS.



FAMILY GLUE, IN BOTTLES.

Is used by thousands of the best mechanics in the building and finishing of Pianos, Organs, Railway Cars, Carriages, Yachts, and in all places where a superior quality of Glue is required.

For Woodwork of all kinds, Emery Wheels, etc. Resists water better than any other Glue. Will unite Wood to Iron perfectly.

Carpenters should carry a can with their kit of tools. It saves three times its cost in labor, time and fuel. Danger from fire is also avoided, as it is always ready for use.

### Carriage and Manufacturers' Glue, in Tin Cans.

½ Pints, Packed 2 Dozen in Box	Per Dozen, \$ 3 00	½ Gallons, Packed ½ Dozen in Box	Per Dozen, \$ 13 50
Pints, " 1 " " "	" " 5 00	Gallons, " ½ " " "	" " 21 00
Quarts, " 1 " " "	" " 8 50		

### For Family Use.

Small Bottles, 1 oz., 1 Dozen in Box	Per Gross, \$12 00	Large Bottles, 2 oz., 1 Dozen in Box	Per Dozen, \$ 18 00
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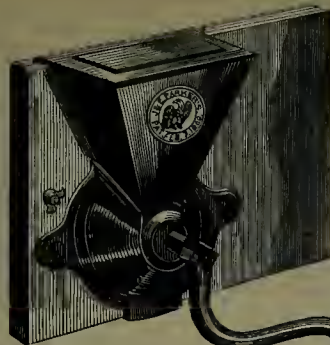
## California Glue.

IN BOXES OF 25 POUNDS EACH.

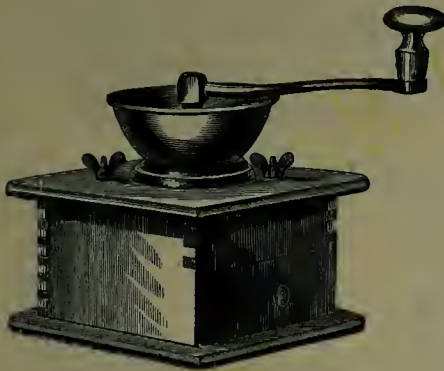
No. 1. Light Brown	Per lb, \$0 20	No. 2. Brown	Per lb, \$0 18	No. 3. Dark Brown	Per lb, \$0 15
White, for Paper Hangers, Kalsomining, etc.					Per lb, \$0 30

# Coffee Mills.

271



SIDE MILL.



"PARKER'S" BOX MILL.



NATIONAL BOX MILL, Nos. 400 to 403.

## "Parker's" Side Coffee Mills. Wood Back.

Nos.	<b>130</b>	<b>131</b>	<b>132</b>	<b>133</b>	<b>134</b>
Old Nos.	California	o	I	2	3
Per Dozen,	\$25 00	15 00	9 00	7 00	6 00

## "Parker's" Box Mills.

Iron Hopper.		Parker's Box Mills.		Britannia Hopper.	
Nos. <b>115</b>	<b>116</b>	<b>117</b>	Nos. <b>110</b>	<b>111</b>	<b>112</b>
Per Dozen, \$9 50	8 50	6 50	Per Dozen, \$12 00	10 50	9 00

## National Box Mills. Iron Top.

Nos.	<b>400</b>	<b>401</b>	<b>402</b>	<b>425</b>
Per Dozen,	\$11 50	13 00	14 00	15 00

## "American"

Coffee

Mill.



SHOWING N° 1 MILL CLOSED.

This Mill grinds six ounces of Coffee per minute, and is regulated to grind coarse or fine by a thumb-screw on the side. It is adapted to family use and prescription counters.

Stands 12½ Inches High, Weighs 8 lbs

Each, \$2 00



## "TUCKER'S"

## Alarm Cash Drawers.



Size, Inside Measure,  $15\frac{1}{2} \times 14\frac{1}{2}$  Inches . Per Dozen, \$36 00

## "MRS. KNOX"

## Fluting Machines.



$4\frac{1}{2}$  Inch Rollers

Each, \$3 25

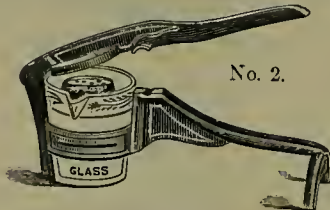
6 " "

" 3 60

8 " "

" 8 00

## Lemon Squeezers.



No. 2.



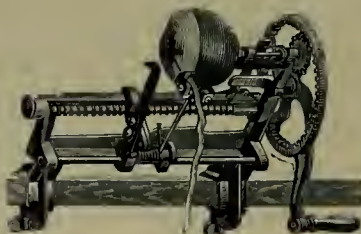
No. 3.

No. 2. With Porcelain Cup and Glass Tumbler, per Doz., \$9 00

No. 3. With Porcelain Cup

Per Dozen, \$5 60

## Apple Parers.



Bay State.

Bay State	Per Dozen, \$13 00
Improved	" " 32 00
Mammoth	" " 60 00

## "Scott's" Peach Parers.



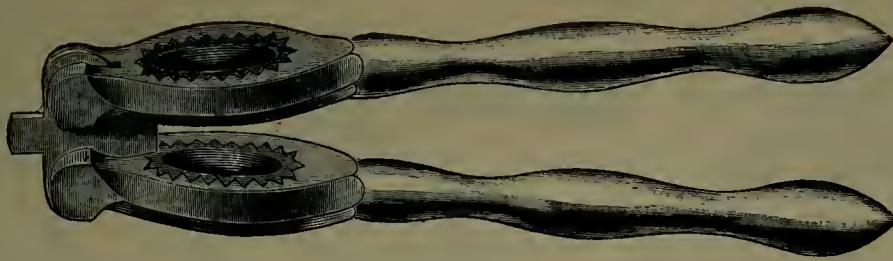
Scott's.

With Rotary Knife

Per Dozen, \$16 50

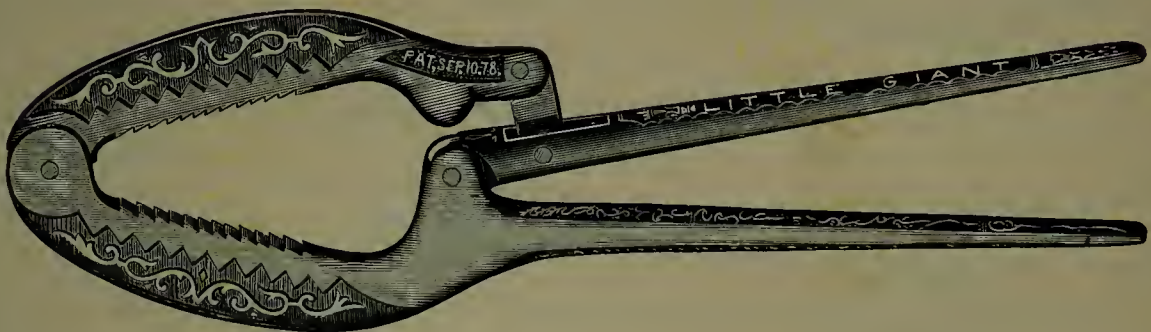
# Nut Crackers.

273



Full Nickel . . . . . Per Dozen, \$8 00 | Full Polished . . . . . Per Dozen, \$7 00

## "Little Giant" Nut Crackers.



Nickel-Plated . . . . . Per Dozen, \$5 00

## "Monce's" Novelty Glass Cutters.



No. 1.



No. 2.



No. 3.

Nos. 1

2

3

Per Dozen, \$1 50

1 25

1 00

## Hair Pincers or Pinchers.



### Japanned Handles.

Small . . . . .	Per Dozen, \$6 00		Large . . . . .	Per Dozen, \$7 00
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### Nickel-Plated.

Small . . . . .	Per Dozen, \$8 00		Large . . . . .	Per Dozen, \$9 00
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## Curling Irons, with Spring.



No. 1. Full Nickel . . . . .	Per Dozen, \$6 00
No. 2. " " . . . . .	" " 6 00
No. 3. " Polished . . . . .	" " 4 50

## Curling Irons, Wood Handle.



No. 1. Large . . . . .	Per Dozen, \$6 85		No. 3. Small . . . . .	Per Dozen, \$4 85
No. 2. Medium . . . . .	" " 5 80		No. 4. Fine . . . . .	" " 4 50

## Pinking Irons.



Assorted,  $\frac{3}{8}$  to 1 Inch . . . . .

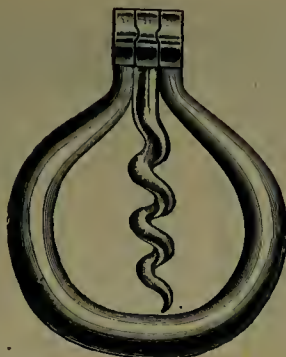
Per Dozen, \$2 75



# Pocket or Folding Corkscrews.



No. 10.

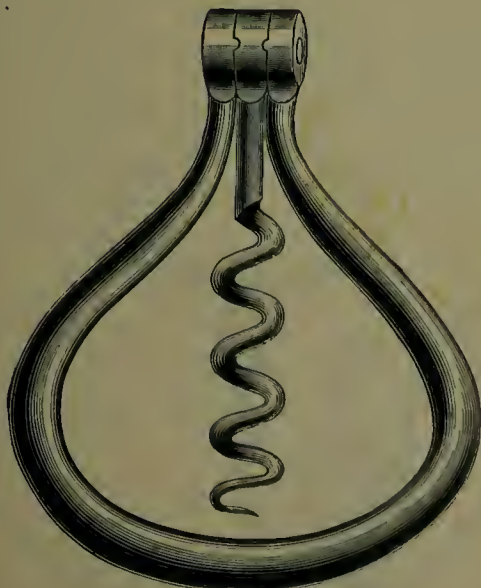


No. 1.



No. 4.

No. 10.	Polished	Per Dozen, \$4 00
No. 1.	Nickel-Plated	" " 4 50
No. 4.	" "	" " 5 25



Full Size Cut of No. 38.



Full Size Cut of No. 39.

## Hand Forged from Best Cast Steel Rods.

No. 38.	With Round Thread Screw	Per Dozen, \$4 50
No. 39.	" " " " and Champagne Knife	" " 7 50
No. 63.	Same as No. 38, with Flat Thread Screw	" " 5 00

## Extra Heavy Cast Steel Corkscrews.



About Half Size Cut of No. 27.



About Half Size Cut of No. 29.

Fancy, Rosewood Handle, with Champagne Opener, Hand Forged from Best Cast Steel Rods, Thick, Brass, Countersunk Cap, well Riveted Shank—cannot work loose in handle.

No. 27.	With Wire Cutter	Per Dozen, \$7 50
No. 29.	" " " and Brush	" " 8 50



About Half Size Cut of No. 66.



About Half Size Cut of No. 45.

Hand Forged from Best Cast Steel Rods, Thick, Brass, Countersunk Cap, well Riveted Shank—cannot work loose in handle.

Hand Forged from Best Cast Steel Rods.

No. 66.	Rosewood Handle	Per Dozen, \$4 50	No. 45.	Japanued Handle	Per Dozen, \$3 50
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# Corkscrews.



About Half Size Cut of No. 124. Patented.

Hand Forged from Best Cast Steel Rods, Thick, Brass, Countersunk Cap, with Riveted Shank.

No. <b>124.</b> Nickel-Plated Frame	Per Dozen, \$6 00
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## Ordinary Corkscrews.

No. <b>3257.</b> Bright	Per Dozen, \$1 50
No. <b>3258.</b> Solid Cut	" " 2 50

## Patent Lever Corkscrews.



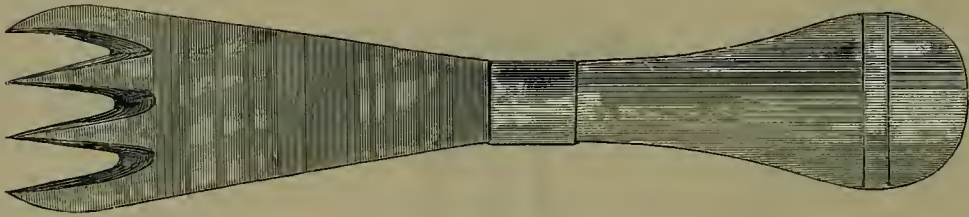
About Half Size Cut of No. 125.

Hand Forged from Best Cast Steel.

No. <b>125.</b> All Nickel-Plated	Per Dozen, \$10 00
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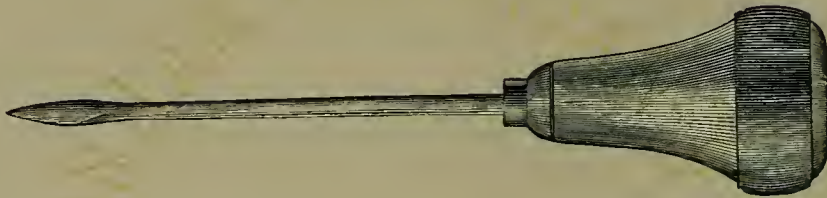


## American Ice Chisel.

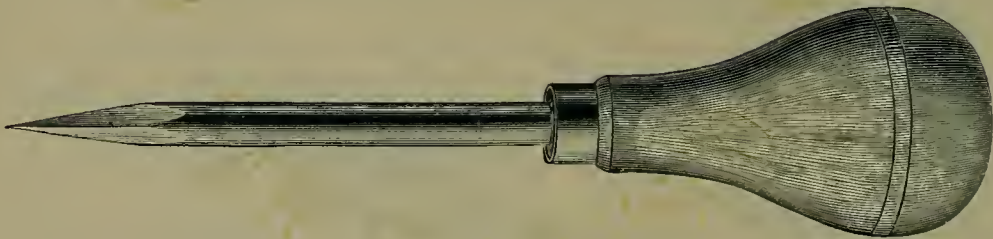


Polished Steel Blades	Per Dozen, \$6 00
Nickel-Plated "	" " 7 50
Tinned "	" " 3 00

## Steel Ice Picks.



No. 3. With Iron Ring on Handle for Breaking Ice	Per Dozen, \$3 00
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No. 346. With Lignum Vitæ Handle	Per Dozen, \$4 25
No. 2. " Soft Wood	" " 1 50

## Ice Mallet, with Ice Pick.



No. 4. With Steel Pick in End of Handle, Ebony Finished Head	Per Dozen, \$3 50
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# Can Openers.

279



No. 1.

No. 1. Iron Handle, Steel Blade

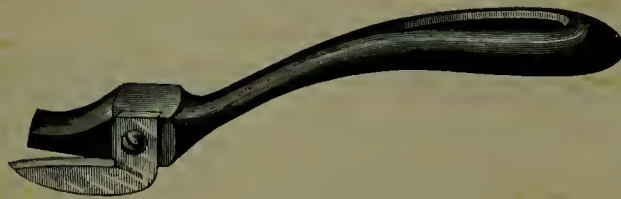
Per Dozen, \$2 00



No. 2.

No. 2. Wood Handle, Steel Blade

Per Dozen, \$2 25



No. 5. Iron Handle, Japanned Steel Blade  
American, " " " " "

Per Dozen, \$1 50

" " 1 00

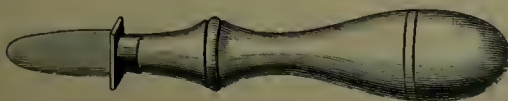
## "Pool's" Can Opener.



No. 3

Per Dozen, \$4 00

## French Can Opener.



No. 4

Per Dozen, \$2 25

## Sardine Scissors.



No. 6. Polished

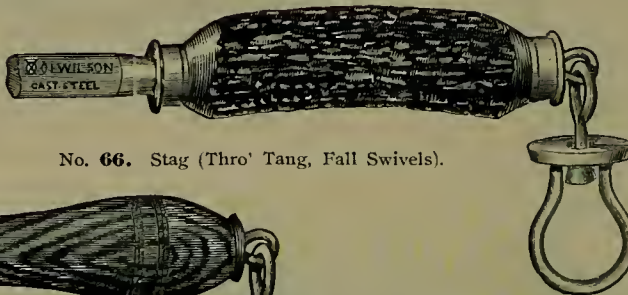
Per Dozen, \$7 00

## "John Wilson's" Butcher Steels.



No. 54. Polished Blackwood Handles.

No. 65. Stag Handle, otherwise same as 54.



No. 66. Stag (Thro' Tang, Fall Swivels).



No. 82. Inlaid Hardwood Handles.

### Butcher Steels.

	Inch,	10	11	12	14
No. 54.	Per Dozen,	\$ 7 40	8 40	9 60	12 40
No. 65.	" "	10 20	11 20	12 40	15 20
No. 66.	" "	11 40	12 40	13 60	16 40
No. 82.	" "	11 40	12 40	13 60	16 40

## "John Wilson's" Butcher Knives.



REGULAR PATTERN.



STICKING KNIFE.



SKINNING KNIFE.

### Beechwood Handles.

Nos.	026	26	28	29	43	44	45	46	47	48	49	86
Inch,	4½	5	5½	6	7	8	9	9	11	12	13	14
Per Dozen,	\$2 00	2 20	2 60	3 00	4 00	5 20	6 40	8 00	9 60	11 20	13 20	16 80



# Spatulas—American.

281



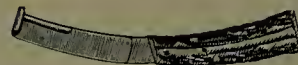
Inch, 5	6	7	8	10	12
Per Dozen, \$3 50	4 00	5 00	6 00	11 00	18 00

## Putty Knives—American.



Round or Square Point . . . . . Per Dozen, \$2 50

## Farriers' Knives.



English . . . . . Per Dozen, \$3 50  
IXL . . . . . " " 4 00

## Glaziers' Knives.

Wide Point . . . . . Per Dozen, \$6 00

## Shoe Knives.



WEBSTERS.

Nos. 1	2	3	4
Per Dozen, \$2 00	2 00	2 00	2 50

## Ames Cigar Knives.



Plain Handle . . . . . Per Dozen, \$1 25  
Ferrule " . . . . . " " 1 50

## Fruit Knives.



Beech Handle . . . . . Per Dozen, \$1 25

## Canning Knives.



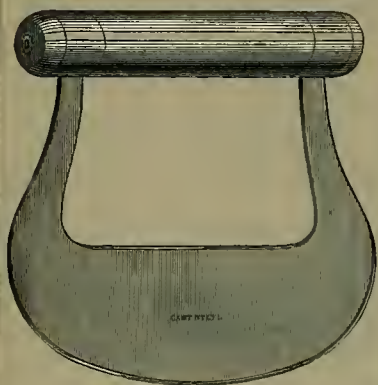
Beech Handle . . . . . Per Dozen, \$1 75

## Cigar Box Openers.

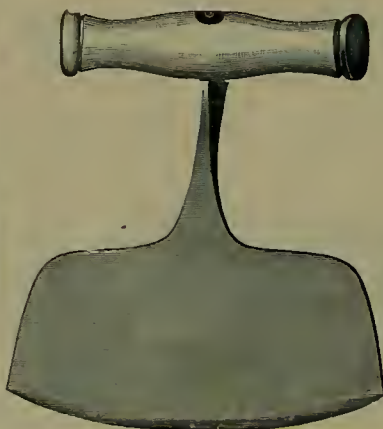


Wood Handles . . . . . Per Dozen, \$6 25

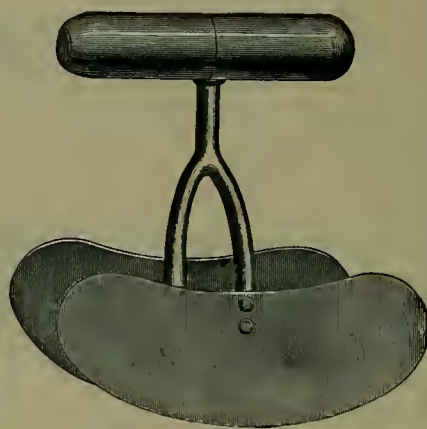
## Cast Steel Mincing Knives.



No. 0.

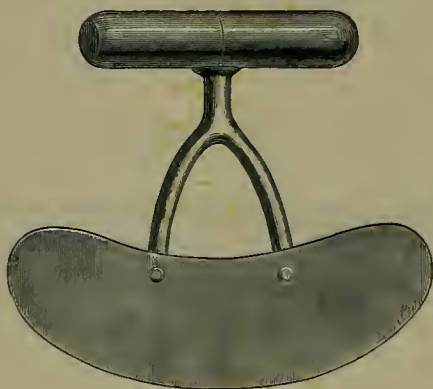


No. 2.



No. 10.

No. 0 . . . . . Per Dozen, \$5 50 | No. 2 . . . . . Per Dozen, \$6 00 | No. 10 . . . . . Per Dozen, \$3 00



No. 9.



No. 16.

No. 9 . . . . . Per Dozen, \$1 50 | No. 16 . . . . . Per Dozen, \$2 50



No. 8.

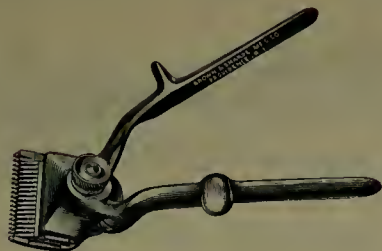
## W. M. &amp; C. Miners.

No. 1. Cast Steel Blade, Malleable Shank . . . . . Per Dozen, \$1 50

No. 8. Heavy Cast Steel Blade, Varnished Handle . . . . . " " 4 00

No. 4. Same Style as No. 8, Smaller, Plain Handle . . . . . " " 3 00

## Brown &amp; Sharpe M'f'g Co.'s Clippers.



Barber's Hair Clippers.

No. 1.	To Cut Hair 1/8 of an Inch Long	Each, \$3 50
No. 2.	" " " 1/4 " " " "	" 4 00
No. 3.	" " " 5/16 " " " "	" 4 50
No. 0.	To be used only for Cutting Hair very short about the Neck, about equal to Shaving	" 3 00

Horse Clippers.

Nickel Plated	Each, \$3 00
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## English and French Horse Clippers.



English.

Brighton	Each, \$2 00
Clark's	" 4 00

French.

No. 2	Each, \$2 00
No. 6	" 2 75
No. 7	" 3 50

## Roaching or Clipping Shears.

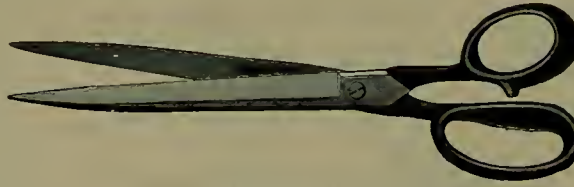


9 Inch, Japanned

Per Dozen, \$36 00



# "R. Heinisch's Sons" Shears, Scissors and Trimmers.



Bankers' Shears.

## Bankers' or Paper Shears—Trimmer Handles.

Nos. **2**  
Length, 12  
Per Dozen, \$30 00

**4**  
14  
42 00

**6**  
16 Inch.  
54 00



Straight Trimmers.

Bent Trimmers.

## Straight Trimmers.

Nos. <b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
Length, 6½	7	7½	8	8½	9	10	11	12 Inch.
Per Dozen, \$11 00	12 00	13 00	14 00	15 00	16 00	25 00	27 00	30 00

## Bent Trimmers.

Nos. <b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Length, 8½	9	10	11	12 Inch.
Per Dozen, \$16 00	18 00	27 00	30 00	33 00



Ladies' Scissors.



Tailors' Points.

## Ladies' Scissors.

No. <b>1.</b>	Length, 5	Inch	Per Dozen, \$10 00
No. <b>2.</b>	" 5½	"	" " 10 00
No. <b>3.</b>	" 6	"	" " 10 00
No. <b>4.</b>	" 6½	"	" " 11 00
No. <b>5.</b>	" 7	"	" " 12 00

## Tailors' Points.

No. <b>1.</b>	Length, 5	Inch	Per Dozen, \$10 00
No. <b>2.</b>	" 5½	"	" " 11 00
No. <b>3.</b>	" 6	"	" " 12 00



Barbers' Scissors.



Pocket Scissors.

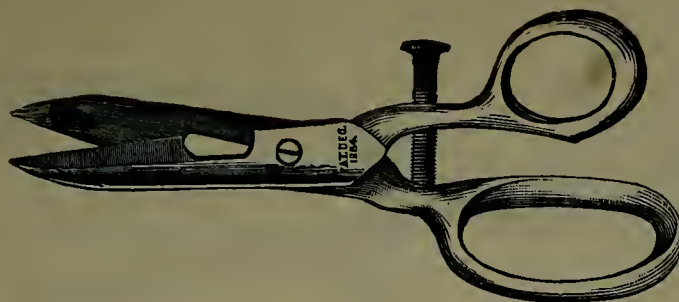
## Barbers' Scissors—Lipped.

Nos. <b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
Length, 7½	8½	9	9½ Inch.
Per Dozen, \$15 00	15 00	16 00	17 00

## Pocket Scissors.

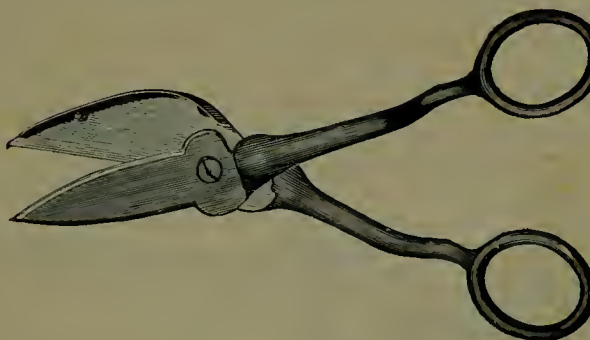
No. <b>1.</b>	Length, 4	Inch	Per Dozen, \$10 00
No. <b>2.</b>	" 4½	"	" " 10 00
No. <b>3.</b>	" 5	"	" " 10 00

## Adjustable Button-Hole Cutters.



Japanned . . . . .	Per Dozen, \$6 00
Nickel . . . . .	" " 8 00

## "Barnard's" Lamp Trimmers.



Japanned Handles . . . . .	Per Dozen, \$6 00
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## Grape Scissors.



FOR VINE OR TABLE USE.

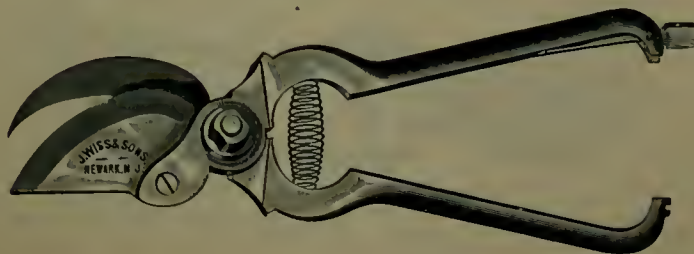
## Orange Shears.



CURVED BLADES.

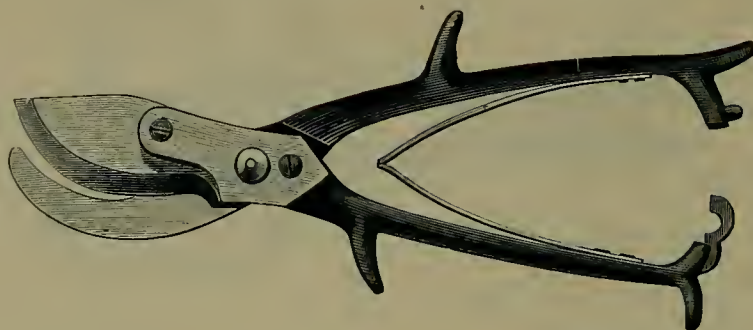
Nickel . . . . .	Per Dozen, \$15 00	7 Inch, Japanned . . . . .	Per Dozen, \$24 00
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## "Wiz" Solid Steel Pruning Shears.



Full Length, Inches, 9	10	11
Per Dozen, \$27 00	30 00	33 00

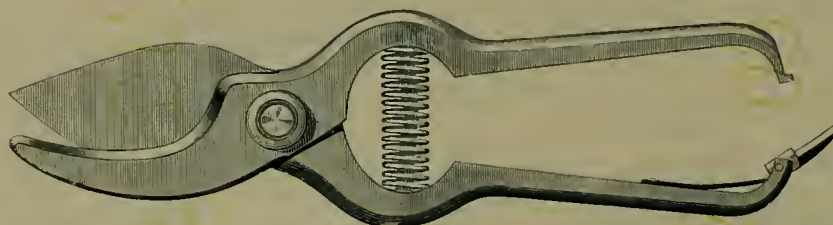
## "Henry's" Pruning Shears.



Steel Blades, Brass Springs.

No. 1. With Flat Brass Spring . . . . .	Per Dozen, \$10 00
No. 2. " Coil " Wire Spring . . . . .	" " 10 00

## French Pruning Shears.



Spiral Steel Springs, Forged, Extra.

9 Inch, all Polished . . . . .	Per Dozen, \$12 00
10 " " " . . . . .	" " 15 00
11 " " " . . . . .	" " 18 00

## "Rockford" Pruning Shears.

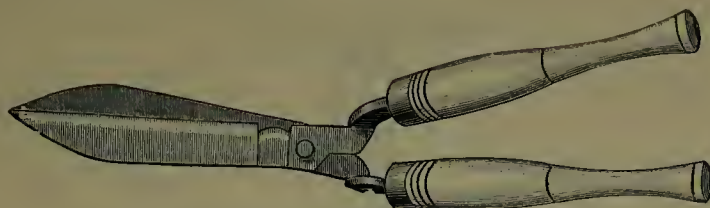


French Pattern.

Length, Inches, 9	10	11
Per Dozen, \$12 00	15 00	18 00



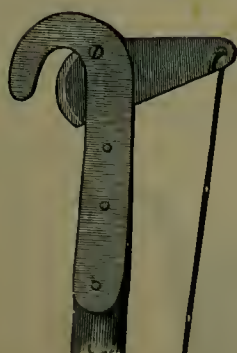
## Hedge Shears.



No. 101.

	Inch,	8	9	10	12
No. <b>100.</b> Plain	Per Pair, \$	1 75	2 25	2 75	3 75
No. <b>101.</b> Notched	" "	2 00	2 50	3 00	4 00
No. <b>103.</b> With Thumb Screw,	" "		3 00		

## "Waters" Tree Pruners.



## "Red Clipper" Pruners.



Length, Feet,	6	8	10	Small Size	Each, \$	3 00
Each, \$	2 25	2 50	3 00	Large "	"	3 50

## "California" Lawn Sprinkler and Stand.



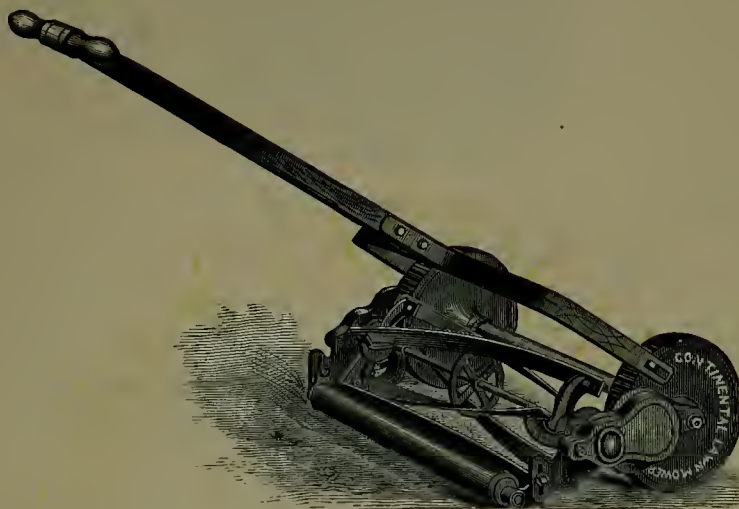
Sprinkler . . . . .	Each, \$
Stand . . . . .	"
Sprinkler and Stand Complete . . . . .	

## "Perfection" Lawn Sprinkler.



For Either $\frac{3}{4}$ or 1 Inch Hose . . . . .	Per Dozen, \$ 15 00
---	---------------------

## The Continental Lawn Mower.



The Lightest Running and Swiftest Cutting Mower in the Market.

### PRICES.

#### High Grass Machines.

15 Inch, Weighs 46 lbs	Each, \$22 00
17 " " 48 "	" 24 00
19 " " 50 "	" 27 00
21 " " 52 "	" 30 00

#### Regular Pattern.

10 Inch, Weighs 30 lbs	Each, \$13 00
12 " " 32 "	" 15 00
14 " " 35 "	" 17 00
16 " " 37 "	" 19 00
18 " " 38 "	" 21 00

Orders taken for Horse Lawn Mowers.



## Needles.

## MATTRESS.



CURVED.

Curved, Assorted, 4 to 10 Inch

Per Dozen, \$

## Upholsterers' Needles.

Length, Inches, 8  
Per Dozen, \$1 50

10  
2 00

12  
2 50

14  
3 00

16  
3 50



## Packing Needles.

Length, Inches, 3  
Per Gross, \$2 25

3½  
2 50

4  
2 75

4½  
3 00

5  
3 75

5½  
4 50

6  
4 75

## Spring Eyed Needles—English.

Length, Inches, 4  
Per Dozen, \$1 25

4½  
1 25

5  
1 50

## Spring Eyed Needles—California Pattern.

## PLAIN.

## ALL HAND MADE.

## WITH CUTTER.

Length, Inches, 4  
Per Dozen, \$1 75

4½  
1 75

Length, Inches, 4  
Per Dozen, \$4 00

4½  
4 00



## Sail Needles.

Length, Inches, 2¼  
Per Hundred, \$1 00

2½  
1 00

2¾  
1 25

3  
1 50

3½  
1 75

4  
2 00

## Sailors' Palms.



Hide

Hide and Brass

Per Dozen, \$2 50

" " 3 00

# Sand and Emery Paper and Emery Cloth.



## "Flint" Sand Paper.

Nos.	00	0	$\frac{1}{2}$	1	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Per Ream, \$	4 75	4 75	4 75	4 75	4 75	5 25	5 25	5 25
Bundle Contains,	5	5	4	3 $\frac{1}{2}$	3	2 $\frac{1}{2}$	2	1 $\frac{1}{2}$ Reams.
Assorted, Nos. 00 to 3 (Bundle Contains 2 $\frac{1}{2}$ Reams)								Per Ream, \$4 75

Half Ream in a Package.

## Extra Flint Paper in Rolls.

23 $\frac{1}{2}$  Inches Wide.

Nos.	00	0	$\frac{1}{2}$	1	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Per Yard, \$	0 10	0 10	0 10	0 10	0 10	0 11	0 12	0 13

50 Yards in a Roll.

## "Star" Sand Paper.

Nos.	00	0	$\frac{1}{2}$	1	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Per Ream, \$	3 75	3 75	3 75	3 75	3 75	3 75	3 75	3 75
Bundle Contains,	5	5	4	3 $\frac{1}{2}$	3	2 $\frac{1}{2}$	2	1 $\frac{1}{2}$ Reams.
Assorted, Nos. 00 to 3 (Bundle Contains 2 $\frac{1}{2}$ Reams)								Per Ream, \$3 75

Half Ream in a Package.

## Emery Paper.

Nos.	00	0	$\frac{1}{2}$	1	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Per Ream, \$	6 50	6 50	6 50	6 50	6 50	7 50	9 50	11 50
Bundle Contains,	4 $\frac{1}{2}$	4	3 $\frac{1}{2}$	3	2 $\frac{1}{2}$	2	1 $\frac{1}{2}$	1 $\frac{1}{2}$ Reams.
Assorted, Nos. 00 to 3 (Bundle Contains 2 $\frac{1}{2}$ Reams)								Per Ream, \$6 50

Half Ream in a Package.

## Emery Cloth.

Nos.	00	0	100	$\frac{1}{2}$	1	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Per Ream, \$	18 00	18 00	18 00	18 00	18 00	18 00	20 00	24 00	26 00
Bundle Contains,	2 $\frac{1}{2}$	2 $\frac{1}{2}$	2	2	1 $\frac{3}{4}$	1 $\frac{1}{2}$	1 $\frac{1}{4}$	1	$\frac{3}{4}$ Reams.
Assorted, Nos. 00 to 3 (Bundle Contains 2 Reams)									Per Ream, \$18 00
Crocus Cloth	( " " 2 " )								" " 18 00

Quarter Ream in a Package.

## COMPARATIVE NUMBERS OF EMERY PAPER AND CLOTH.

Baeder, Adamson & Co.'s Numbers,	00	0	100	$\frac{1}{2}$	1	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
English Numbers, Flour,		120	100	90	80	70	60	51	46

EMERY, IN KEGS, ALL STANDARD NUMBERS, KEPT IN STOCK.

## Wrought Trap Door Rings and Staples.

Full Size Cut of  $1\frac{1}{2}$  Inch.

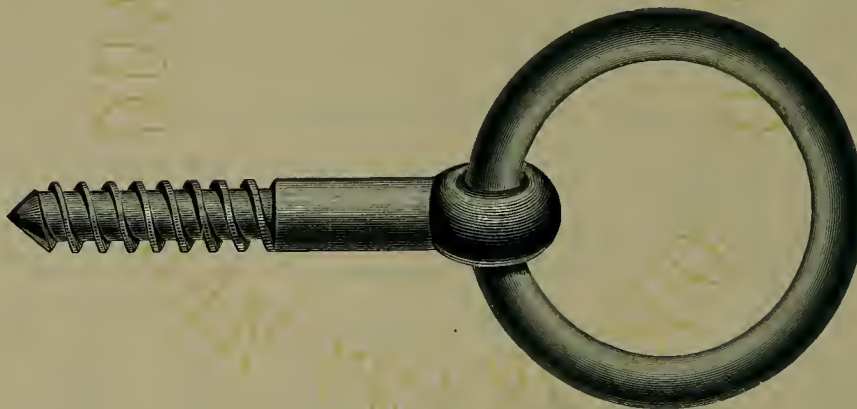
## No. 55. Wrought Iron.

Inch, $1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{4}$	$2\frac{1}{2}$	3
Per Gross, \$8 40	9 60	11 50	13 20	15 60	18 00

## No. 57. Galvanized Wrought Iron.

Inch, $1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{4}$	$2\frac{1}{2}$	3
Per Gross, \$12 00	14 00	16 00	19 00	21 00	24 00

## Hitching Rings.

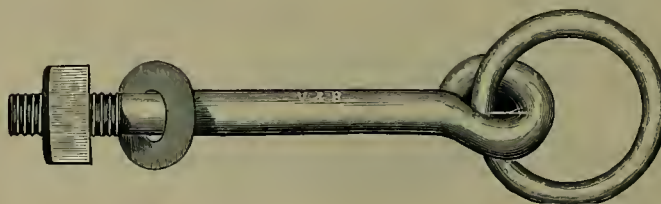
Nos. 15 and 17. Full Size Cut of  $2\frac{1}{2}$  Inch.

## Wrought Iron.

## Galvanized Wrought Iron.

No. 15. $2\frac{1}{2}$ Inch	Per Dozen, \$2 00	No. 17. $2\frac{1}{2}$ Inch	Per Dozen, \$2 75
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## Wrought Swing Bolts and Rings.



Made of Iron. One Size Only.

 $\frac{1}{2}$  Inch Diameter, 7 Inches Long

Per Dozen, \$1 50



WROUGHT SCREW HOOK.

Full Size Cut of  $\frac{3}{8}$  Inch.

## Wrought Screw Hooks.

## No. 120. Wrought Iron.

Inch,	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$
Per Dozen,	\$0 90	1 00	1 25	1 50	2 20	3 50

## No. 122. Galvanized Wrought Iron.

Inch,	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$
Per Dozen,	\$1 35	1 50	2 00	2 60	4 00	6 40

## Wrought Eye Bolts.

## No. 100. Wrought Iron.

Inch,	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$
Per Dozen,	\$1 40	1 75	2 20	3 25	5 50

## No. 102. Galvanized Wrought Iron.

Inch,	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$
Per Dozen,	\$2 00	2 50	3 25	4 75	8 00

Full Size Cut of  $\frac{3}{8}$  Inch.

## Brass Eye Bolts.

## For Ship Use.

## FINISHED.

No. 1.	$\frac{1}{2}$ Inch Eye, with 1	Inch Screw, per Dozen,	\$1 50
No. 2.	$\frac{3}{8}$ " " " $1\frac{1}{4}$ " "	"	1 80
No. 3.	$\frac{3}{4}$ " " " $1\frac{1}{4}$ " "	"	2 10
No. 4.	$\frac{7}{8}$ " " " $1\frac{1}{4}$ " "	"	2 70
No. 5.	1 " " " $1\frac{1}{2}$ " "	"	2 90
No. 6.	$1\frac{1}{8}$ " " " $1\frac{3}{4}$ " "	"	3 20
No. 7.	$1\frac{1}{4}$ " " " 2 " "	"	4 20

## Rowlocks.

## ALL SWIVEL IN SOCKET.

## Galvanized Malleable Iron.

Sizes, Nos.	1	2	3
Opening, 2 In.		$2\frac{1}{4}$	$2\frac{1}{2}$
Per Pair,	\$0 60	0 80	1 20

## Galvanized Cast Iron.

Sizes, Nos.	11	12	13
Opening, 2 In.		$2\frac{1}{4}$	$2\frac{1}{2}$
Per Pair,	\$0 40	0 60	1 00

BRASS EYE BOLT.

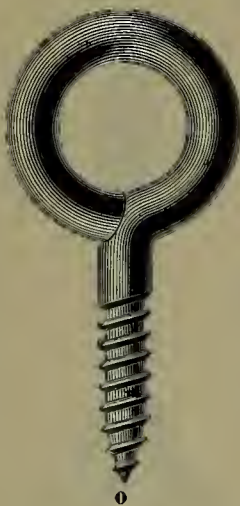


No. 4.

ROWLOCK.



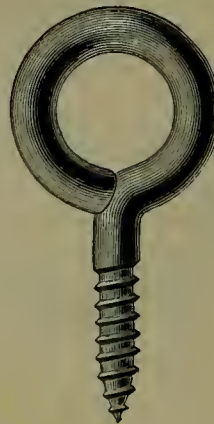
## Bright Iron and Brass Wire Screw Eyes.



0



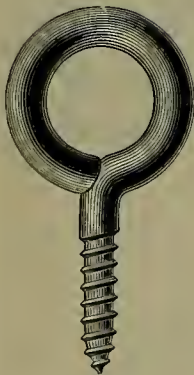
1



2



3



4



5



6



7



8



9



10



11



12



13



14

## Bright Iron Wire Screw Eyes.

Nos.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Iron, per Gross, \$	9 00	7 50	6 00	5 00	4 00	3 00	2 50	2 00	1 70	1 50	1 40	1 30	1 20	1 10	1 05

## Brass Wire Screw Eyes.

Nos.	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014
Brass, per Gross, \$	19 00	16 00	13 00	10 00	8 00	6 00	5 00	4 00	3 50	3 00	2 50

# Bright Iron and Brass Wire Screw Eyes.

295



104



105



106



107



108



109



110



111



112



113



114



204



205



206



207



208



209



210



211



212



213



214

## Bright Iron Wire Screw Eyes.

Nos.	104	105	106	107	108	109	110	111	112	113	114 & 114½
Per Gross,	\$3 10	2 60	2 20	1 80	1 60	1 45	1 35	1 25	1 15	1 05	1 00
Nos.	204	205	206	207	208	209	210	211	212	213	214 & 214½
Per Gross,	\$2 90	2 40	2 00	1 65	1 45	1 35	1 30	1 20	1 10	1 00	0 95

## Brass Wire Screw Eyes.

Nos.	1104	1105	1106	1107	1108	1109	1110	1111	1112	1113	1114 & 1114½
Per Gross,	\$17 00	14 00	11 00	9 00	7 00	5 00	4 00	3 00	2 75	2 50	2 25
Nos.	1204	1205	1206	1207	1208	1209	1210	1211	1212	1213	1214 & 1214½
Per Gross,	\$14 50	12 00	9 50	7 00	5 50	4 50	3 50	2 75	2 50	2 25	2 00





# Patent Brass Wood Screws.

REVISED LIST OF JULY 1, 1887.



LIST PRICE. PER GROSS.

Inch.	Numbers.																	
1-4	{	0	1	2	3	4												
		\$ 0 52	0 52	0 55	0 57	0 60												
3-8	{	0	1	2	3	4	5	6	7									
		\$ 0 52	0 53	0 56	0 58	0 62	0 67	0 71	0 78									
1-2	{	1	2	3	4	5	6	7	8	9	10							
		\$ 0 56	0 58	0 61	0 67	0 71	0 79	0 86	0 98	1 09	1 23							
5-8	{	2	3	4	5	6	7	8	9	10	11	12						
		\$ 0 59	0 64	0 70	0 78	0 86	0 96	1 09	1 23	1 40	1 56	1 75						
3-4	{	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
		\$ 0 70	0 72	0 74	0 83	0 93	1 04	1 22	1 38	1 57	1 75	1 97	2 18	2 43	2 68	2 96		
7-8	{	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
		\$ 0 90	0 92	0 95	0 98	1 01	1 16	1 35	1 53	1 73	1 95	2 18	2 42	2 69	2 98	3 29		
1	{	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18		
		\$ 1 01	1 04	1 07	1 10	1 27	1 48	1 68	1 91	2 14	2 40	2 67	2 97	3 28	3 62	4 35		
1 <sup>1</sup> / <sub>4</sub>	{	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	20
		\$ 1 35	1 38	1 41	1 44	1 47	1 73	1 97	2 13	2 52	2 83	3 16	3 51	3 88	4 29	4 71	5 16	6 12
1 <sup>1</sup> / <sub>2</sub>	{	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	20	
		\$ 1 86	1 89	1 92	1 95	1 98	2 26	2 58	2 92	3 28	3 67	4 08	4 52	5 00	5 49	6 01	7 13	
1 <sup>3</sup> / <sub>4</sub>	{	6	7	8	9	10	11	12	13	14	15	16	17	18	20	22	24	
		\$ 2 45	2 48	2 51	2 54	2 91	3 30	3 72	4 17	4 64	5 17	5 68	6 25	6 84	8 13	9 53	11 07	
2	{	6	7	8	9	10	11	12	13	14	15	16	17	18	20	22	24	
		\$ 3 14	3 17	3 20	3 23	3 26	3 70	4 18	4 68	5 21	5 78	6 38	7 01	7 69	9 12	10 70	12 42	
2 <sup>1</sup> / <sub>4</sub>	{	8	9	10	11	12	13	14	15	16	17	18	20	22				
		\$ 4 50	4 54	4 57	4 60	4 63	5 19	5 78	6 42	7 07	7 79	8 53	10 12	11 87				
2 <sup>1</sup> / <sub>2</sub>	{	10	11	12	13	14	15	16	17	18	20	22	24					
		\$ 6 23	6 26	6 29	6 32	6 35	7 04	7 78	8 55	9 38	11 13	13 04	15 12					
3	{	10	11	12	13	14	15	16	18	20	22	24	26					
		\$ 9 00	9 02	9 05	9 08	9 11	9 14	9 17	11 05	13 12	15 37	17 82	20 47					

## Nickel-Plated Screws.



ROUND HEAD.



FLAT HEAD.

Nickel-Plated on Iron. Round and Flat Heads.

Numbers,	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	20
$\frac{1}{2}$ In.	\$1 45	\$1 45	\$1 45	\$1 45	\$1 45	\$1 50	\$1 60									
$\frac{5}{8}$ "	1 45	1 45	1 45	1 45	1 45	1 55	1 63	\$1 85	\$2 05							
$\frac{3}{4}$ "	1 45	1 45	1 45	1 45	1 50	1 57	1 70	1 90	2 15	\$2 35	\$2 70					
$\frac{7}{8}$ "	....	....	1 45	1 50	1 55	1 61	1 70	1 90	2 20	2 40	2 75	\$3 15	\$3 60			
1 "	....	....	1 50	1 55	1 55	1 68	1 75	1 95	2 25	2 45	2 80	3 25	3 70			
1 $\frac{1}{4}$ "	....	....	1 55	1 55	1 65	1 80	1 95	2 10	2 30	2 60	2 95	3 35	3 85	\$4 20	\$4 65	
1 $\frac{1}{2}$ "	....	....	....	1 88	1 94	2 05	2 15	2 38	2 50	2 85	3 15	3 55	4 00	4 40	4 85	\$5 85
1 $\frac{3}{4}$ "	....	....	....	2 15	2 20	2 30	2 40	2 55	2 80	3 12	3 45	3 80	4 20	4 60	5 10	6 15
2 "	....	....	....	....	....	2 40	2 50	2 70	3 00	3 45	3 75	4 05	4 45	5 00	5 55	6 70
2 $\frac{1}{4}$ "	....	....	....	....	....	....	2 85	3 00	3 25	3 75	4 05	4 30	4 80	5 30	6 10	7 25
2 $\frac{1}{2}$ "	....	....	....	....	....	....	3 45	3 55	3 65	4 00	4 25	4 75	5 10	5 85	6 65	7 90
2 $\frac{3}{4}$ "	....	....	....	....	....	....	....	....	....	....	4 60	....	5 40	....	7 30	8 75
3 "	....	....	....	....	....	....	....	....	....	....	5 00	....	6 20	....	8 05	9 45

## American Screw Co.'s Iron Machine Screws.



ROUND OR FLAT HEADS.

Numbers,	2	3	4	5	6	7	8	9	10	12	14	16	18	20	22	24	26	28	30
Length,																			
$\frac{3}{16}$	\$0 55	55	55	55	55	55													
$\frac{1}{4}$ & $\frac{5}{16}$	55	55	55	55	55	65	65	75	75										
$\frac{3}{8}$ & $\frac{7}{16}$	55	55	55	55	55	65	65	75	75	85	95	1 05							
$\frac{1}{2}$	55	55	55	55	55	65	65	75	75	85	95	1 05	1 15	1 20	1 35	1 50			
$\frac{5}{8}$	....	60	60	60	60	65	65	75	75	85	95	1 05	1 15	1 20	1 35	1 50			
$\frac{3}{4}$	....	....	65	65	65	65	65	75	75	85	95	1 05	1 15	1 20	1 35	1 50	1 60		
$\frac{7}{8}$	....	....	....	75	75	75	75	85	85	95	1 05	1 10	1 25	1 30	1 50	1 60	1 70	1 90	
1	....	....	....	....	85	85	85	95	95	95	1 10	1 15	1 30	1 35	1 60	1 70	1 90	2 10	2 35
1 $\frac{1}{8}$	....	....	....	....	....	95	95	95	95	1 00	1 15	1 20	1 30	1 40	1 70	1 80	2 00	2 20	2 50
1 $\frac{1}{4}$	....	....	....	....	....	....	1 00	1 00	1 00	1 00	1 20	1 25	1 35	1 45	1 80	1 90	2 00	2 30	2 60
1 $\frac{3}{8}$	....	....	....	....	....	....	....	1 10	1 10	1 10	1 20	1 30	1 40	1 50	1 90	2 00	2 10	2 40	2 70
1 $\frac{1}{2}$	....	....	....	....	....	....	....	1 10	1 10	1 20	1 30	1 35	1 45	1 60	1 90	2 00	2 15	2 45	2 75
1 $\frac{3}{4}$	....	....	....	....	....	....	....	....	1 30	1 40	1 50	1 60	1 70	1 90	2 15	2 30	2 45	2 75	3 10
2	....	....	....	....	....	....	....	....	....	....	1 75	1 90	2 00	2 20	2 45	2 60	2 90	3 40	
2 $\frac{1}{4}$	....	....	....	....	....	....	....	....	....	....	....	2 00	2 15	2 40	2 60	2 75	3 10	3 80	
2 $\frac{1}{2}$	....	....	....	....	....	....	....	....	....	....	....	....	2 30	2 50	2 75	2 90	3 40	4 20	
2 $\frac{3}{4}$	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2 75	2 90	3 80	4 60	
3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2 75	2 90	3 10	3 80	4 60

## Threads to the Inch.

Machine Screws, Nos.	2	3	4, 5	6, 7, 8	9, 10	12, 14	16	18, 20, 22	24, 26, 28, 30
Threads to the Inch,	56	48	32, 36 & 40	30 & 32	24, 30 & 32	20 & 24	16, 18 & 20	16 & 18	14 & 16



# Set Screws—Steel and Iron.

299

Case Hardened



Iron Set Screws.

PER HUNDRED.

Diam. of Screw.	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1	1 1/8	Diam. of Screw.	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1	1 1/8	1 1/4
3/4	2 00	2 20	2 50	2 90	3 40	4 25	5 00	...	...	...	...	2	2 80	3 00	3 30	3 95	4 45	5 30	6 05	8 60	12 90	17 00	21 10	25 30
1	2 15	2 35	2 65	3 10	3 60	4 25	5 00	7 00	...	...	...	2 1/4	...	3 25	3 55	4 25	4 75	5 65	6 40	9 30	13 80	18 40	22 90	27 40
1 1/4	2 30	2 50	2 80	3 30	3 80	4 50	5 25	7 00	11 30	...	...	2 1/2	...	...	3 85	4 60	5 10	6 05	6 80	10 00	14 80	19 80	24 70	29 60
1 1/2	2 45	2 65	2 95	3 50	4 00	4 75	5 50	7 50	11 30	14 90	...	2 3/4	...	...	...	5 00	5 50	6 50	7 25	10 80	15 90	21 40	26 70	32 00
1 3/4	2 60	2 80	3 10	3 70	4 20	5 00	5 75	8 00	12 00	15 90	19 50	3	...	...	...	...	5 95	7 00	7 75	11 70	17 10	23 00	28 80	34 60
Thr'ds to Inch.	20	18	16	14	12	12	11	10	9	8	7	Thr'ds to Inch.	20	18	16	14	12	12	11	10	9	8	7	7
...	...	...	...	...	...	...	...	...	...	...	...	Add for each 1/4 Inch.	25	30	35	45	50	55	60	1 00	1 30	1 70	2 20	2 80

Hardened Steel



Set Screws.

PER HUNDRED.

Diam. of Screw.	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1	Diam. of Screw.	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1
3/4	4 80	5 30	6 00	6 95	8 15	9 60	12 00	...	...	...	2	6 60	7 10	7 90	9 60	10 80	12 80	14 70	20 80	28 00	36 90
1	5 15	5 65	6 35	7 45	8 65	10 20	12 00	16 80	...	...	2 1/4	...	7 55	8 40	10 20	11 50	13 60	15 50	22 40	30 00	39 50
1 1/4	5 50	6 00	6 70	7 95	9 15	10 80	12 60	16 80	24 60	...	2 1/2	...	...	9 00	11 00	12 20	14 50	16 40	24 10	32 30	42 50
1 1/2	5 85	6 35	7 05	8 45	9 65	11 40	13 20	18 00	24 60	34 60	2 3/4	...	...	...	11 80	13 00	15 50	17 40	25 90	34 70	46 00
1 3/4	6 20	6 70	7 45	9 00	10 20	12 10	13 90	19 30	26 20	34 60	3	...	...	...	...	13 90	16 60	18 50	27 80	37 30	50 00
Thr'ds to Inch.	20	18	16	14	12	12	11	10	9	8	Thr'ds to Inch.	20	18	16	14	12	12	11	10	9	8
	..	..	..	..	..	..	..	..	..	..	Add for each 1/4 Inch.	45	50	70	90	1 00	1 20	1 25	2 00	2 80	4 50

Hexagon Head



Cap Screws.

PER HUNDRED.

Diameter of Head.	7/16	1/2	9/16	5/8	3/4	Diameter of Head.	13/16	7/8	1	1 1/8	1 1/4
Length of Head.	9/32	11/32	13/32	15/32	9/16	Length of Head.	5/8	11/16	13/16	15/16	1 1/16
Diameter of Screw.	1/4	5/16	3/8	7/16	1/2	Diameter of Screw.	9/16	5/8	3/4	7/8	1
Length under Head to Point.	3/4 \$3 00 1 3 25 1 1/4 3 50 1 1/2 3 75 1 3/4 4 00 2 4 25 ...	3/4 \$3 25 1 3 50 1 1/4 3 75 1 1/2 4 00 1 3/4 4 25 2 4 60 ...	3/4 \$3 75 1 4 00 1 1/4 4 25 1 1/2 4 50 1 3/4 4 75 2 5 05 ...	3/4 \$4 40 1 4 70 1 1/4 5 00 1 1/2 5 30 1 3/4 5 60 2 5 95 ...	3/4 \$5 50 1 5 70 1 1/4 6 00 1 1/2 6 30 1 3/4 6 60 2 7 00 ...	3/4 \$7 00 1 7 00 1 1/4 7 50 1 1/2 8 00 1 3/4 8 50 2 9 10 ...	...	...	...	...	...
Thr'ds to Inch.	20	18	16	14	12	Thr'ds to Inch.	12	11	10	9	8
Add for each 1/4 Inch.	\$0 30	0 40	0 50	0 60	0 80	Add for each 1/4 Inch.	\$1 00	1 30	1 60	2 00	2 40

## Lag Bolts or Coach Screws.

COMMON POINT.

COMMON POINT.

## MANUFACTURERS' STANDARD LIST.

PER HUNDRED.

LENGTH.	5/16	3/8	7/16	1/2	9/16 & 5/8	3/4	7/8	1
1½ Inch.	\$2 70	\$3 10	\$4 00	\$4 30	.....	.....	.....	.....
2 "	2 90	3 30	4 25	4 60	\$6 50	.....	.....	.....
2½ "	3 10	3 50	4 50	4 90	6 90	\$10 00	.....	.....
3 "	3 30	3 70	4 75	5 20	7 30	10 50	\$15 00	.....
3½ "	3 50	3 90	5 00	5 50	7 70	11 00	15 75	\$21 60
4 "	3 70	4 10	5 25	5 80	8 10	11 50	16 50	22 50
4½ "	3 90	4 30	5 50	6 10	8 50	12 00	17 25	23 40
5 "	4 10	4 50	5 75	6 40	8 90	12 50	18 00	24 25
5½ "	4 30	4 70	6 00	6 70	9 30	13 00	18 75	25 25
6 "	4 50	4 90	6 25	7 00	9 70	13 50	19 50	26 25
7 "	.....	.....	6 75	7 60	10 50	14 50	21 00	28 25
8 "	.....	.....	7 25	8 20	11 30	15 50	22 50	30 25
9 "	.....	.....	7 75	8 80	12 10	16 50	24 00	32 25
10 "	.....	.....	.....	9 40	12 90	17 50	25 50	34 25
11 "	.....	.....	.....	10 00	13 70	18 50	27 00	36 25
12 "	.....	.....	.....	10 60	14 50	19 50	28 50	38 25

## Machine Bolts.

With Square Heads and Nuts. Finished Points.

ROUND HEAD.  
SQUARE NECK.

HEXAGON.

## MANUFACTURERS' STANDARD LIST.

PER HUNDRED.

LENGTH.	1/4	5/16	3/8	7/16	1/2	9/16 & 5/8	3/4	7/8	1
1½ Inch.	\$2 80	\$3 20	\$3 60	\$4 60	\$5 00	\$7 20	\$10 50	\$14 90	\$22 00
2 "	2 90	3 35	3 80	4 90	5 30	7 70	11 10	15 80	23 10
2½ "	3 00	3 50	4 00	5 20	5 60	8 20	11 70	16 60	24 20
3 "	3 10	3 65	4 20	5 50	5 90	8 70	12 30	17 50	25 30
3½ "	3 20	3 80	4 40	5 80	6 20	9 20	12 90	18 30	26 40
4 "	3 30	3 95	4 60	6 10	6 50	9 70	13 50	19 20	27 50
4½ "	3 40	4 10	4 80	6 40	6 80	10 20	14 10	20 00	28 60
5 "	3 50	4 25	5 00	6 70	7 10	10 70	14 70	20 90	29 70
5½ "	3 60	4 40	5 20	7 00	7 40	11 20	15 30	21 70	30 80
6 "	3 70	4 55	5 40	7 30	7 70	11 70	15 90	22 60	31 90
6½ "	3 80	4 70	5 60	7 60	8 00	12 20	16 50	23 40	33 00
7 "	3 90	4 85	5 80	7 90	8 30	12 70	17 10	24 30	34 10
7½ "	4 00	5 00	6 00	8 20	8 60	13 20	17 70	25 10	35 20
8 "	4 10	5 15	6 20	8 50	8 90	13 70	18 30	26 00	36 30
9 "	.....	.....	6 60	9 10	9 50	14 75	19 50	27 70	38 50
10 "	.....	.....	7 00	9 70	10 10	15 75	20 70	29 40	40 70
11 "	.....	.....	7 40	10 30	10 70	16 75	21 90	31 10	42 90
12 "	.....	.....	7 80	10 90	11 30	17 75	23 10	32 80	45 10
13 "	.....	.....	.....	.....	11 90	18 75	24 30	34 50	47 30
14 "	.....	.....	.....	.....	12 50	19 75	25 50	36 20	49 50
15 "	.....	.....	.....	.....	13 10	20 75	26 70	37 90	51 70
16 "	.....	.....	.....	.....	13 70	21 75	27 90	39 60	53 90
17 "	.....	.....	.....	.....	14 30	22 75	29 10	41 30	56 10
18 "	.....	.....	.....	.....	14 90	23 75	30 30	43 00	58 30
19 "	.....	.....	.....	.....	15 50	24 75	31 50	44 70	60 50
20 "	.....	.....	.....	.....	16 10	25 75	32 70	46 40	62 70

Bolts with Hexagon Heads or Hexagon Nuts, 10 per cent. extra.

If both Hexagon Heads and Hexagon Nuts, 20 per cent. extra.

Bolts with Square Necks charged extra.

Bolts of irregular shape or style, made to order, will be charged extra at our discretion.

"PHILADELPHIA PATTERN."

Refined Iron Carriage Bolts.



With Forged Nuts, Oval Heads and Finished Points.

Diameter. |

LENGTH OF BOLT, AND PRICE PER HUNDRED.

1-4 {	1	1¼	1½	1¾	2	2¼	2½	2¾	3	3¼	3½	3¾	4	4¼
	\$ 1 35	1 35	1 35	1 40	1 45	1 50	1 55	1 60	1 65	1 70	1 75	1 80	1 85	1 90
	4½	4¾	5	5½	6	6½	7	7½	8	8½	9	9½	10	10½
	\$ 1 95	2 00	2 50	2 15	2 25	2 35	2 45	2 55	2 65	2 75	2 85	2 95	3 05	3 15

5-16 {	1	1¼	1½	1¾	2	2¼	2½	2¾	3	3¼	3½	3¾	4	4¼
	\$ 1 60	1 60	1 60	1 68	1 75	1 83	1 90	1 98	2 05	2 13	2 20	2 28	2 35	2 43
	4½	4¾	5	5½	6	6½	7	7½	8	8½	9	9½	10	11
	\$ 2 50	2 58	2 65	2 80	2 95	3 10	3 25	3 40	3 55	3 70	3 85	4 00	4 15	4 45

3-8 {	1½	1¾	2	2¼	2½	2¾	3	3¼	3½	3¾	4	4¼	4½	4¾
	\$ 2 30	2 30	2 30	2 40	2 50	2 60	2 70	2 80	2 90	3 00	3 10	3 20	3 30	3 40
	5	5½	6	6½	7	7½	8	8½	9	9½	10	10½	11	12
	\$ 3 50	3 70	3 90	4 10	4 30	4 50	4 70	4 90	5 10	5 30	5 50	5 70	5 90	6 30

7-16 {	2	2½	3	3½	4	4½	5	5½	6	6½	7	7½	8	8½
	\$ 3 10	3 35	3 60	3 85	4 10	4 35	4 60	4 85	5 10	5 35	5 60	5 85	6 10	6 35
	9	9½	10	10½	11	11½	12	12½	13	13½	14	14½	15	16
	\$ 6 60	6 85	7 10	7 35	7 60	7 85	8 10	8 35	8 60	8 85	9 10	9 35	9 60	10 10

1-2 {	2	2½	3	3½	4	4½	5	5½	6	6½	7	7½	8	8½
	\$ 3 80	4 12	4 44	4 76	5 08	5 40	5 72	6 04	6 36	6 68	7 00	7 32	7 64	7 96
	9	9½	10	10½	11	11½	12	12½	13	13½	14	14½	15	16
	\$ 8 28	8 60	8 92	9 24	9 56	9 88	10 20	10 52	10 84	11 16	11 48	11 80	12 12	12 76

5-8 {	3	3½	4	4½	5	5½	6	6½	7	7½	8	8½	9	9½
	\$ 7 50	8 00	8 50	9 00	9 50	10 00	10 50	11 00	11 50	12 00	12 50	13 00	13 50	14 00
	10	10½	11	11½	12	12½	13	13½	14	14½	15	16	17	18
	\$14 50	15 00	15 50	16 00	16 50	17 00	17 50	18 00	18 50	19 00	19 50	20 50	21 50	22 50

3-4 {	3	3½	4	4½	5	5½	6	6½	7	7½	8	8½	9	9½
	\$13 50	14 20	14 90	15 60	16 30	17 00	17 70	18 40	19 10	19 80	20 50	21 20	21 90	22 60
	10	10½	11	11½	12	12½	13	13½	14	14½	15	16	17	18
	\$23 30	24 00	24 70	25 40	26 10	26 80	27 50	28 20	28 90	29 60	30 30	31 70	33 10	34 50



"COLEMAN'S" NORWAY  
Philadelphia Carriage Bolts.



With Forged Nuts, Turned Heads and Finished Points.

WARRANTED OF GENUINE NORWAY IRON.

Diameter.		LENGTH OF BOLT, AND PRICE PER HUNDRED.									
1-8 3-16 1-4	1	1¼	1½	1¾	2	2¼	2½	2¾	3	3¼	3½
	\$ 3 00	3 10	3 20	3 30	3 40	3 50	3 60	3 70	3 80	3 90	4 00
	3¼	4	4¼	4½	5	5½	6	6½	7	7½	8
	\$ 4 10	4 20	4 35	4 50	4 80	5 10	5 40	5 70	6 00	6 30	6 60
5-16	1½	1¾	2	2¼	2½	2¾	3	3¼	3½	3¾	4
	\$ 4 00	4 00	4 10	4 20	4 40	4 50	4 70	4 90	5 00	5 20	5 30
	4½	5	5½	6	6½	7	7½	8	8½	9	10
	\$ 5 70	6 00	6 30	6 60	7 00	7 30	7 60	7 90	8 20	8 50	9 10
3-8	2	2¼	2½	2¾	3	3¼	3½	3¾	4	4¼	4½
	\$ 5 00	5 20	5 40	5 60	5 80	6 00	6 20	6 40	6 60	6 80	7 00
	5	5½	6	6½	7	7½	8	8½	9	9½	10
	\$ 7 40	7 80	8 20	8 60	9 00	9 40	9 80	10 20	10 60	11 00	11 40
7-16	2	2¼	2½	2¾	3	3½	4	4½	5	5½	6
	\$ 7 40	7 60	7 80	8 00	8 20	8 60	9 00	9 40	9 80	10 20	10 60
	6½	7	7½	8	8½	9	9½	10	10½	11	12
	\$11 00	11 40	11 80	12 20	12 60	13 00	13 40	13 80	14 20	14 60	15 40
1-2	2	2½	3	3½	4	4½	5	5½	6	6½	7
	\$ 9 00	9 50	10 00	10 50	11 00	11 50	12 00	12 50	13 00	13 50	14 00
	7½	8	8½	9	9½	10	10½	11	12	13	14
	\$14 50	15 00	15 50	16 00	16 50	17 00	17 50	18 00	19 00	20 00	21 00

Philadelphia



Tire Bolts.

Norway Iron, with Forged Nuts and Finished Points.

Diameter.		LENGTH OF BOLT, AND PRICE PER HUNDRED.									
1-8		All Lengths, \$1 50 per Hundred.									
3-16	1	1¼	1½	1¾	2	2¼	2½	2¾	3	3¼	3½
	\$ 1 50	1 50	1 50	1 50	1 60	1 65	1 75	1 80	1 90	2 00	2 05
1-4	1¼	1½	1¾	2	2¼	2½	2¾	3	3¼	3½	4
	\$ 1 90	2 00	2 15	2 25	2 40	2 50	2 65	2 75	2 90	3 00	3 25
5-16	1½	1¾	2	2¼	2½	2¾	3	3½	4	4½	5
	\$ 2 70	2 85	3 05	3 20	3 35	3 50	3 65	3 95	4 25	4 55	4 90
3-8	2	2¼	2½	2¾	3	3½	4	4½	5	5½	6
	\$ 5 00	5 20	5 40	5 60	5 80	6 20	6 60	7 00	7 40	7 80	8 20

## Plow Bolts.



No. 1.



No. 2.



No. 3.



No. 4.

With Right or Left Hand Thread, as may be Ordered.

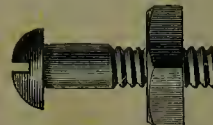
PER HUNDRED.

LENGTH.	5/16 Inch.	3/8 Inch.	7/16 Inch.	1/2 Inch.	9/16 Inch.	5/8 Inch.	LENGTH.	5/16 Inch.	3/8 Inch.	7/16 Inch.	1/2 Inch.	9/16 Inch.	5/8 Inch.
1 1/4	\$1 70	\$2 00	\$2 60	\$3 50	\$4 50	\$5 70	2 3/4	\$2 30	\$2 60	\$3 50	\$4 70	\$6 00	\$7 50
1 1/2	1 80	2 10	2 75	3 70	4 75	6 00	3	2 40	2 70	3 65	4 90	6 25	7 80
1 3/4	1 90	2 20	2 90	3 90	5 00	6 30	3 1/4	....	2 80	3 80	5 10	6 50	8 10
2	2 00	2 30	3 05	4 10	5 25	6 60	3 1/2	....	2 90	3 95	5 30	6 75	8 40
2 1/4	2 10	2 40	3 20	4 30	5 50	6 90	3 3/4	....	3 00	4 10	5 50	7 00	8 70
2 1/2	2 20	2 50	3 35	4 50	5 75	7 20	4	....	3 10	4 25	5 70	7 25	9 00



FLAT HEAD.

## Stove Bolts.



ROUND HEAD.

PER HUNDRED.

FLAT HEADS.					ROUND HEADS.	
LENGTH.	5/32, 3/16 and 7/32 Inch.	1/4 Inch.	5/16 Inch.	3/8 Inch.	5/32, 3/16 and 7/32 Inch.	1/4 Inch.
3/8 Inch	\$0 60	....	....	....	\$0 85	....
1/2 "	0 60	\$0 65	....	....	0 85	\$0 95
5/8 "	0 60	0 65	....	....	0 85	0 95
3/4 "	0 60	0 65	\$1 05	\$2 20	0 85	0 95
7/8 "	0 65	0 70	1 10	2 20	0 90	1 00
1 "	0 65	0 70	1 10	2 20	0 90	1 00
1 1/8 "	0 70	0 75	1 15	2 20	0 95	1 05
1 1/4 "	0 70	0 75	1 15	2 20	0 95	1 05
1 1/2 "	0 75	0 80	1 20	2 20	1 00	1 10
1 3/4 "	0 75	0 80	1 20	2 20	1 00	1 10
2 "	0 80	0 85	1 25	2 20	1 05	1 15
2 1/4 "	0 85	0 90	1 30	2 20	1 10	1 20
2 1/2 "	0 90	0 95	1 35	2 30	....	....
2 3/4 "	0 95	1 00	1 40	2 40	....	....
3 "	1 00	1 05	1 45	2 50	....	....
	1 05	1 10	1 50	2 60	....	....



## Elevator Bolts.

Wrought Iron.



For Bolting Buckets to Grain Elevators.

PER HUNDRED.

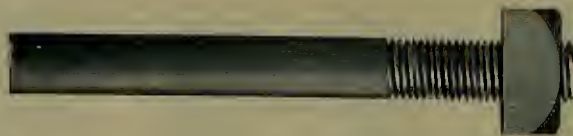
Size, 1/4 Inch x 3/4 Inch.  
Per Hundred, \$3 30

1 Inch.  
3 50

5/16 Inch x 3/4 Inch.  
4 50

1 Inch.  
5 00

## Bolt Ends.



STANDARD LIST OF THE ASSOCIATION OF BOLT AND NUT MANUFACTURERS OF THE UNITED STATES.

Size of Iron,	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	1 1/8	1 1/4	1 3/8	1 1/2	1 3/4	1 7/8	2
Length,	6	7	7	8	9	10	11	12	13	14	15	16	18	19	20
Price, per lh, \$	0 28	0 24	0 20	0 16	0 14	0 12	0 12	0 12	0 12	0 14	0 14	0 14	0 16	0 16	0 16

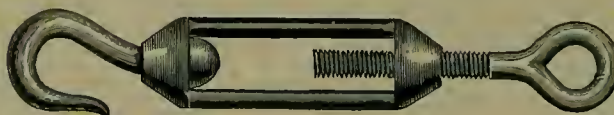
## Turn Buckles.



MANUFACTURERS' STANDARD LIST.

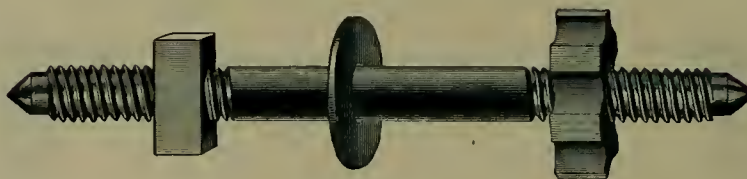
1/2 Inch	Each, \$	1 00	1 Inch,	Per lb, \$	1 17
3/8 "	"	1 25	1 1/8 "	"	0 17
3/4 "	Per lh,	0 20	1 1/4 "	"	0 16
7/8 "	"	0 18	1 1/2 "	"	0 16

## Hook and Eye Turn Buckles.



5/16 Inch, Galvanized	Each, \$	1 50
3/8 " "	"	1 75
7/16 " "	"	2 00
1/2 " "	"	2 25

## Wrought Hand Rail Screws.



Full Size Cut of 4 1/2 Inch. 2 Nuts and Washer.

5/16 Inch, 2 Nuts and Washer	{	Inch, 4	4 1/2	5	5 1/2
		Per Gross, \$	10 25	11 25	12 50
5/16 Inch, 1 Nut and Washer, Screw End	{	Inch, 4	4 1/2	5	5 1/2
		Per Gross, \$	9 00	10 00	11 25
7/16 Inch, 2 Nuts and Washer, Swelled Center	{	Inch, 4	5	6	
		Per Gross, \$	16 75	19 00	21 50



# Nuts, Washers and Clinch Rings.

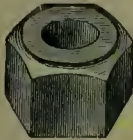
305

## SQUARE NUTS. HOT PRESSED.



Width.	Thickness.	Hole.	Size of Bolt.	Price 100 lbs.
1/2	1/4	7/32	1/4	\$13 00
5/8	5/16	9/32	5/16	11 50
3/4	3/8	11/32	3/8	10 00
7/8	7/16	13/32	7/16	9 00
1	1/2	7/16	1/2	8 70
1 1/8	9/16	1/2	9/16	8 50
1 1/4	5/8	17/32	5/8	8 30
1 1/4	5/8	9/16	5/8	8 30
1 1/2	3/4	11/16 or 21/32	3/4	8 00
1 3/4	7/8	13/16 or 25/32	7/8	
2	1	7/8 or 27/32	1	
2 1/4	1 1/8	15/16 or 1	1 1/8	
2 1/2	1 1/4	1 1/16 or 1 1/8	1 1/4	8 30
2 3/4	1 3/8	1 3/16 or 1 1/4	1 3/8	
3	1 1/2	1 5/16 or 1 3/8	1 1/2	8 80
3 1/4	1 5/8	1 7/16	1 5/8	
3 1/2	1 3/4	1 9/16	1 3/4	9 30
3 3/4	1 7/8	1 11/16	1 7/8	
4	2	1 13/16	2	

## HEXAGON NUTS. HOT PRESSED.



Width.	Thickness.	Hole.	Size of Bolt.	Price 100 lbs.
1/2	1/4	7/32	1/4	\$20 00
5/8	5/16	9/32	5/16	16 00
3/4	3/8	11/32	3/8	13 00
7/8	1/2	3/8	7/16	11 20
1	7/16	7/16	1/2	10 50
1 1/8	1/2	1/2	9/16	10 30
1 1/4	5/8	9/16	5/8	9 80
1 1/2	7/8	21/32	3/4	9 50
1 5/8	1	25/32	7/8	
1 3/4	1 1/8	27/32	1	
2	1 1/4	15/16	1 1/8	
2 1/4	1 3/8	1 1/16	1 1/4	9 80
2 1/2	1 1/2	1 3/16	1 3/8	
2 3/4	1 5/8	1 9/32	1 1/2	10 00
3 1/4	1 7/8	1 9/16	1 3/4	10 50
3 1/2	2	1 13/16	2	11 00

## WASHERS.



Diameter.	Size of Hole.	Thickness Wire Gauge.	Size of Bolt.	Price 100 lbs.
5/8	1/4	No. 18	3/16	\$18 00
3/4	5/16	No. 16	1/4	12 50
7/8	3/8	No. 16	5/16	11 50
1	7/16	No. 14	3/8	10 50
1 1/4	1/2	No. 14	7/16	9 50
1 3/8	9/16	No. 12	1/2	9 00
1 1/2	5/8	No. 12	9/16	8 50
1 3/4	11/16	No. 10	5/8	
2	13/16	No. 10	3/4	
2 1/4	15/16	No. 9	7/8	
2 1/2	1 1/16	No. 9	1	
2 3/4	1 1/4	No. 9	1 1/8	
3	1 3/8	No. 9	1 1/4	9 00
3 1/2	1 1/2	No. 8	1 3/8	
3 3/4	1 5/8	No. 8	1 1/2	
4	1 7/8	No. 8	1 3/4	
4 1/2	2 1/8	No. 8	2	

## CAST IRON WASHERS.

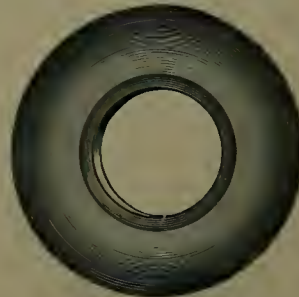


For 1/2 Inch Iron	Per Pound, \$0 06 1/2
" 5/8 " "	" 0 06
" 3/4 " "	" 0 05 1/2
For 3/8 to 2 Inch Iron	" 0 05

## ANGLE BRIDGE WASHERS

Made to Order.

## CLINCH RINGS.



	BLACK.	GALVANIZED.
1/2 and 9/16	\$0 25	\$0 30
5/8 and larger	0 17	0 21

## Hydraulic Lifting Jacks.

CLAW.



WIDE BASE.



PLAIN.



Claw.

Tons,	1	1	7	7	10	15	20	30
Raise, Inches,	12	24	12	24	12	12	12	12
Price, \$	58 00	62 00	68 00	72 00	80 00	120 00	160 00	200 00

Wide Base.

Tons,	7	7	10	15	15	20
Raise, Inches,	12	24	12	12	18	12
Price, \$	64 00	70 00	76 00	100 00	120 00	120 00

Plain.

Tons,	7	10	15	30	30
Raise, Inches,	12	12	12	9	12
Price, \$	56 00	64 00	80 00	120 00	140 00

## Jack Screws.

BELL BOTTOM, COMPLETE, WITH LEVER AND WROUGHT SCREW.



SIZE.

INCHES.

INCH.	6	8	10	12	14	16	18	20
1 1/8	\$1 80	\$1 90	\$2 00	\$2 25	\$2 50	...	...	...
1 1/4	2 75	3 00	3 25	3 50	3 75	...	...	...
1 3/8	3 50	3 50	3 65	3 90	4 15	4 50	...	...
1 1/2	3 00	3 50	3 75	4 00	4 25	4 65	4 90	...
1 3/4	3 25	3 75	4 00	4 50	4 75	5 00	6 25	...
2	4 25	4 25	4 75	5 25	6 00	7 00	7 50	8 00
2 1/4	...	...	7 00	7 50	8 00	9 00	9 50	10 00
2 1/2	...	...	8 00	8 50	9 00	9 50	10 50	11 00
3	...	...	...	...	...	18 00	20 00	22 00

## Directions for Using Hydraulic Jacks.

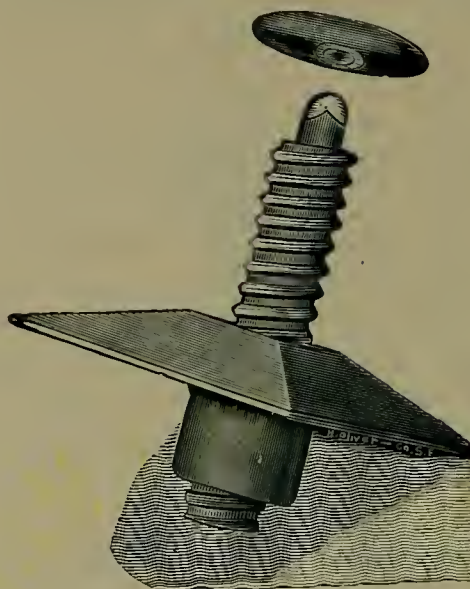
1. Keep the ram quite down when not in use.
2. *To Fill*—Push the ram quite down, remove the screw in the head and fill with whiskey, or alcohol and water, equal parts, in which is a few drops of oil.
3. *Never fill with water or kerosene oil.* Water rusts too much. The oil destroys the packing.
4. Be very careful that no dirt gets into the head while filling.
5. *To Use*—Place the head (or, if a Claw Jack, the claw or head) under the weight to be raised, put in the lever with the projection downward, then work it perpendicularly until the weight is at the required height, or the number of inches the Jack runs out. To lower the weight, push the lever to the bottom of the stroke, take it out, turn it with the projection upward, and with a slight pressure of the hand, the weight may be lowered as slow as required, or stopped at any point. Sometimes it happens that another stroke of the lever would raise the weight too high; then raise the lever a little, and push it down slowly, by which the stroke will be missed.
6. They should not be lowered fast and suddenly checked with a heavy weight on them.
7. Should the valve stick on its seat, and prevent the Jack working, by striking the lever a few sharp blows up and down, the valve will be released.
8. If left run out, supporting a weight or otherwise, it may be necessary to slacken the screw in the head, to let out the air with which it becomes filled, before it can be pushed down.
9. In using them for any purpose, one man of ordinary weight can apply all the force on the lever which they are designed to stand, and it is intended the lever should bend or break when more than 150 pounds are applied to it.
10. They should rest fair on the bottom and top in pressing, especially those which raise more than ten tons.

### K I N K S .

11. If when using the Jack the filling comes over the top of the cylinder, or through the blow-hole, the ram packing is too loose, and unless worn out may be fixed by putting a very thin strip of tin between the packing and ring, care being taken to keep it perfectly true.
12. If the Jack will not run down easy enough, take off a very little of the packing with a clean file. We always require the weight of one man to force them down when they leave the shop. If they go down too easy they are liable to leak too soon.
13. If when pumping the ram does not raise, there is either something under the pump valve, or the pump packing is worn too loose. Observe rule 7 of directions for the former.
14. If when under pressure the lever raises, there is something under the ram-valve, or the seat is cut. Observe rule 7 of directions for the former. Re-grind the valve for the latter.
15. If when forced down the ram raises or goes down unusually hard, observe rule 8 of directions.
16. The valves should have a good seat about 1/16 inch wide and a little over 1/16 inch drop.
17. The lowering wire should be just long enough to allow the piston valve to be forced off its seat by the spring when the socket is clear down to the lug on the head.
18. Wash very thoroughly at every step with clean water when putting together, if you have had the Jack apart.



## House Raising Screws.



With a Wrought Iron Screw, which will be found far superior and cheaper than the cast Screws heretofore used.

Size of Screw, 2½ Inches

Price, \$5 50

Size of Screw, 2¾ Inches

Price, \$6 00

Size of Screw, 3 Inches

Price, \$6 75

## "DUNCAN'S" LOG JACK.

## "Duncan's" Log Jack.

The working parts of these Jacks are made from Cast Steel, and have given good satisfaction.

Price

\$40 00

## "GARCIN'S"

Timber Lifting

JACK.

## "Garcin's"

## Timber Lifting Jack.

No. 1, or Small Size, has a movement of 14 inches; will raise the end of a log weighing 4 tons.

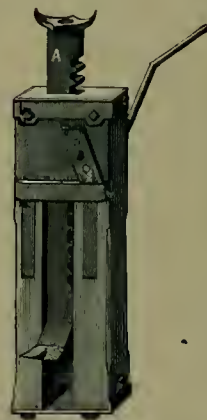
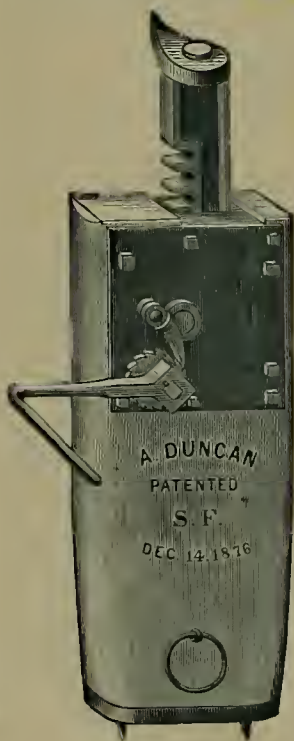
Price

\$30 00

No. 2, or Large Size, has a movement of 14 inches; will raise the end of a log weighing 6 tons.

Price

\$40 00



# Carriage or Wagon Rivets.

OVAL HEAD.



ONE HUNDRED RIVETS IN EACH PAPER.

SIZE OF WIRE OR DIAMETER.	3	4	6	8 & 10	SIZE OF WIRE OR DIAMETER.	3	4	6	8 & 10
Length, $\frac{3}{4}$ In., per 100	\$0 30	\$0 27	\$0 20	\$0 14	Length, 2 In., per 100	\$0 70	\$0 61	\$0 42	\$0 32
" $\frac{7}{8}$ " " 100	0 33	0 31	0 23	0 16	" $2\frac{1}{4}$ " " 100	0 78	0 68	0 48	0 36
" $1\frac{1}{8}$ " " 100	0 39	0 33	0 24	0 18	" $2\frac{1}{2}$ " " 100	0 86	0 75	0 53	0 39
" $1\frac{1}{4}$ " " 100	0 42	0 37	0 27	0 20	" 3 " " 100	0 97	0 85	0 63	0 45
" $1\frac{1}{2}$ " " 100	0 45	0 41	0 28	0 23	" $3\frac{1}{2}$ " " 100	1 08	0 97	0 74	0 52
" $1\frac{3}{4}$ " " 100	0 54	0 48	0 32	0 26	" 4 " " 100	1 24	1 09	0 83	0 57
" $1\frac{3}{4}$ " " 100	0 62	0 54	0 37	0 29					

## NORWAY BURS FOR CARRIAGE RIVETS.

BLACK.

No. 3	4	6	8	10
Per String of 100, \$0 20	0 15	0 12½	0 10	0 10

## LARGE HEAD TIRE RIVETS.



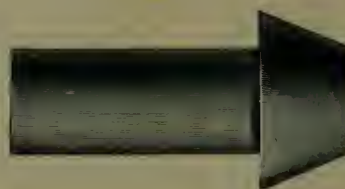
Full Size Cut of 2 Inch.

1/4 Inch by 1 1/2 to 4 Inch Long	Per Pound, \$0 15
5/16 " " 1 1/2 " 5 " " "	0 13½

## Washers or Burs for above Tire Rivets.

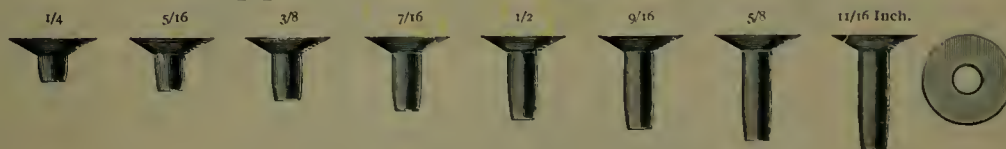
Flat	Per Pound, \$0 12
Oval, 1/4 Inch	" " 0 18
" 5/16 "	" " 0 16

## BOILER RIVETS.



1/2 Inch by 1 to 3 Inch Long	Per Pound, \$0 06½
5/8 " 3/4 and 7/8, any Length	0 06

## Copper Belt Rivets and Burs.

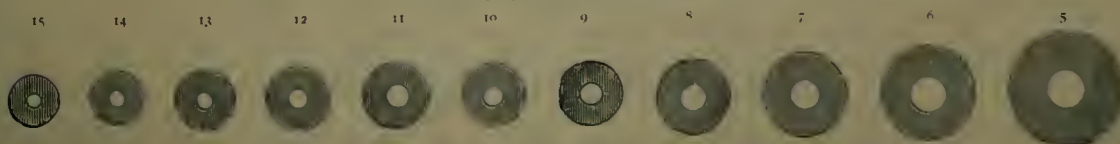


CUTS OF No. 8 BELT RIVETS.

"STUB'S" GAUGE.

Belt and Hose,	No. 5 & 7	8	9	10	12	13	14	15
All Lengths from 1/4 to 1 1/2 Inch, per Pound, \$0 49	0 50	0 52	0 54	0 58	0 60	0 75	0 70	

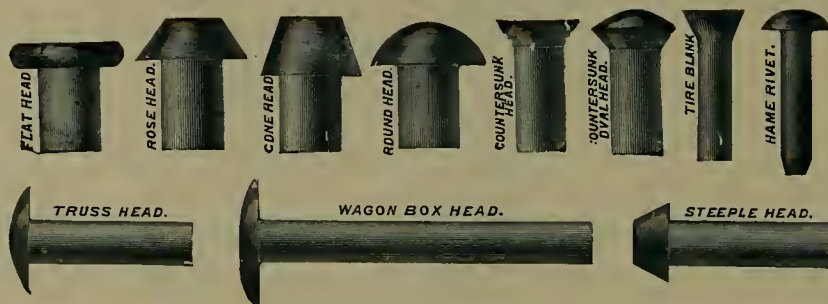
## Copper Burs.



COPPER BURS SAME PRICE AS COPPER RIVETS OF THE SAME NUMBERS.

## Iron Rivets.

REVISED LIST NOVEMBER 17, 1887.



Of the above styles, we keep in stock the FLAT and ROUND HEAD. Other Patterns to order only.

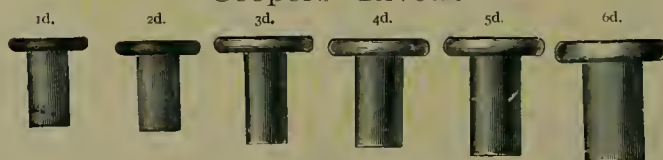
## Flat and Round Head Rivets.

3/16 Inch Thick, 3/8 Inch Long	Per Pound, \$0 17	3/16 Inch Thick, 1/2 Inch and Longer	Per Pound, \$0 14
1/4 " " 3/8 " "	" " 0 14	1/4 " " 1/2 " "	" " 0 12 1/2
5/16 " " 3/8 " "	" " 0 13	5/16 " " 1/2 " "	" " 0 12 1/2
3/8 Inch Thick, 1/2 Inch and Longer	Per Pound, \$0 12		

## Tank Rivets. Number to the Pound.

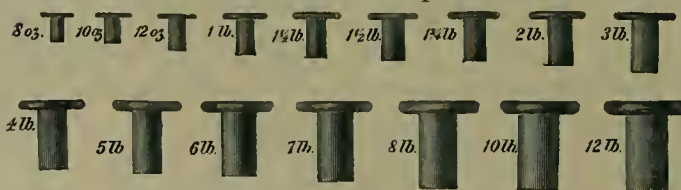
		3/16 Inch Diameter.													
Length,	3/8	7/16	1/2	5/8	3/4	7/8	1	1 1/8	1 1/4	1 3/8	1 1/2	1 5/8	1 3/4	1 7/8	2
F. & R. H.,	165	153	135	118	103	92	84	77	72	67	62	58	54	51	48
C. S.,	230	200	172	148	129	114	102	93	85	78	72	67	62	58	54
		1/4 Inch Diameter.													
F. & R. H.,	103	92	81	71	63	56	50	46	43	40	37	34	32	30	29
C. S.,	155	128	108	93	80	70	62	56	51	47	44	41	38	35	33
		5/16 Inch Diameter.													
F. & R. H.,	67	58	50	44	39	35	32	30	28	26	24	22	21	20	19
C. S.,	89	78	69	60	53	47	42	37	34	31	29	27	25	23	22
		3/8 Inch Diameter.													
F. & R. H.,	..	35	31	27	23	21	19	18	17	16	15	14	13	12	11
C. S.,	..	..	46	40	35	31	27	24	22	21	20	19	18	17	16

## Coopers' Rivets.



Size,	1d	2d	3d	4d	5d	6d
Per Pound,	\$0 15	0 13	0 12 1/2	0 12 1/2	0 12 1/2	0 12

## Black Iron Rivets in Papers and Bulk.



BLACK IRON. IN PAPERS.																
Sizes, oz.,	8	10	12	1b.,	1	1 1/4	1 1/2	1 3/4	2	3	4	5	6	7	8	9
Per 1000,	\$0 20	0 22	0 24	0 27	0 29	0 32	0 36	0 40	0 53	0 64	0 75	0 90	1 05	1 20	1 27	1 40

BLACK IRON. IN BULK.																
Sizes, oz.,	8	10	12	1b.,	1	1 1/4	1 1/2	1 3/4	2	3	4	5	6	7	8	9
Per lb.,	\$0 38	0 34	0 31	0 26	0 23	0 21	0 20	0 19	0 17	0 15	0 14	0 14	0 14	0 14	0 13	0 13



# Cut Nails. Base and Extras.

311



10 to 60d Common	Base, Per Keg, \$ . . .	Cut Spikes, 3 to 8 Inch	add \$0 25 above 10d
8 and 9d "	add to " " " 0 25, above 10d	Lining Nails 7/8 "	" 4 50 " 10d
6 " 7d "	" " " " 0 50, " 10d	" " 3/4 "	" 6 00 " 10d
4 " 5d "	" " " " 0 75, " 10d	Barrel " 1 1/2 "	" 0 75 " 10d
3d "	" " " " 1 50, " 10d	" " 1 1/4 "	" 1 50 " 10d
2d "	" " " " 2 00, " 10d	" " 1 1/8 "	" 1 75 " 10d
4d Fine	" " " " 1 75, " 10d	" " 1 "	" 2 50 " 10d
Fencing	Same as Common	" " 7/8 "	" 3 00 " 10d
Clinch	add \$2 00 above "	" " 3/4 "	" 3 50 " 10d
Casing and Box	" 0 75 " "	Roofing " Iron "	" 0 50 " Com.
Finishing	" 1 00 " "	Tobacco "	" 0 50 " "

GALVANIZED. PRICE QUOTED ON APPLICATION.

## STANDARD LENGTHS AND NUMBER TO POUND.

2	3	Fine 3	4	5	6	7	8	9	10	12	16	20	30	40	50	60d Fence 6	8	10	12d
1	1 1/8	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3	3 1/4	3 1/2	4	4 1/2	5	5 1/2	6	2	2 1/2	3
No. to the lb, 1000	760	480	300	200	160	128	92	72	60	44	32	24	18	14	12	10	80	50	34

## Boat Nails.



WARRANTED TO CLINCH. REGULAR POINT.

Length, Inch,	1	1 1/4	1 1/2 to 4
Black, Per Pound, \$0 12		0 11	0 10
Galvanized, " " 0 16		0 15	0 14

## Ship and Boat Spikes.



Thickness, Inch,	1/4	5/16	3/8	7/16	1/2
Black, Per Keg of 100 Pounds, \$6 50		6 00	5 50	5 50	5 50
Galvanized, " " 100 " 8 50		8 00	7 50	7 50	7 50

## Railroad or Hook-Head Spikes.



Thickness, Inch, 5/16	3/8	7/16	1 2	9/16
Per 100 Pounds, \$7 00	6 50	6 00	6 00	5 50

## Round Track Nails. Countersunk Heads.



Thickness, Inch, 1 1/4	5/16	3 8
Per Pound, \$0 13 1/2	0 12	0 10 1/2

## Ship Spikes.

## AVERAGE NUMBER PER 100 POUNDS.

Thickness, Inches.	Length, Inches.	No. in 100 Pounds.	Thickness Inches.	Length, Inches.	No. in 100 Pounds.
1/4	3	1,500	3/8	6	380
1/4	3 1/2	1,260	3/8	7	322
1/4	4	1,100	3/8	8	304
1/4	4 1/2	976	7/16	7	297
1/4	5	920	7/16	8	256
5/16	3 1/2	805	7/16	9	200
5/16	4	757	1/2	7	204
5/16	4 1/2	710	1/2	8	171
5/16	5	620	1/2	9	160
5/16	6	580	1/2	10	148
3/8	5	495			

## Nails.

## AVERAGE NUMBER PER POUND, ORDINARY CUT.

Size.	Length.	No. in lb.	Size.	Length.	No. in lb.
3d fine	1 1/8 Inch	760	12d	3 1/4 Inch	44
3d	1 1/4 "	480	20d	4 "	24
4d	1 1/2 "	300	30d	4 1/2 "	18
5d	1 3/4 "	200	40d	5 "	14
6d	2 "	190	50d	5 1/2 "	12
8d	2 1/2 "	92	60d	6 "	10
10d	3 "	60			

## Clinch.

Length, Inch.	No. in lb.
2	152
2 1/4	133
2 1/2	92
2 3/4	72
3	60

## Fence.

Size.	No. in lb.
6d	80
8d	50
10d	34
12d	29

## Finishing.

Size.	No. in lb.
4d	384
5d	256
6d	204
8d	102
10d	80

## Cut Spikes.

Length, Inch,	4	4 1/2	5	5 1/2	6
Average No. per lb,	12	10	8	6	4

## Wire Spikes.

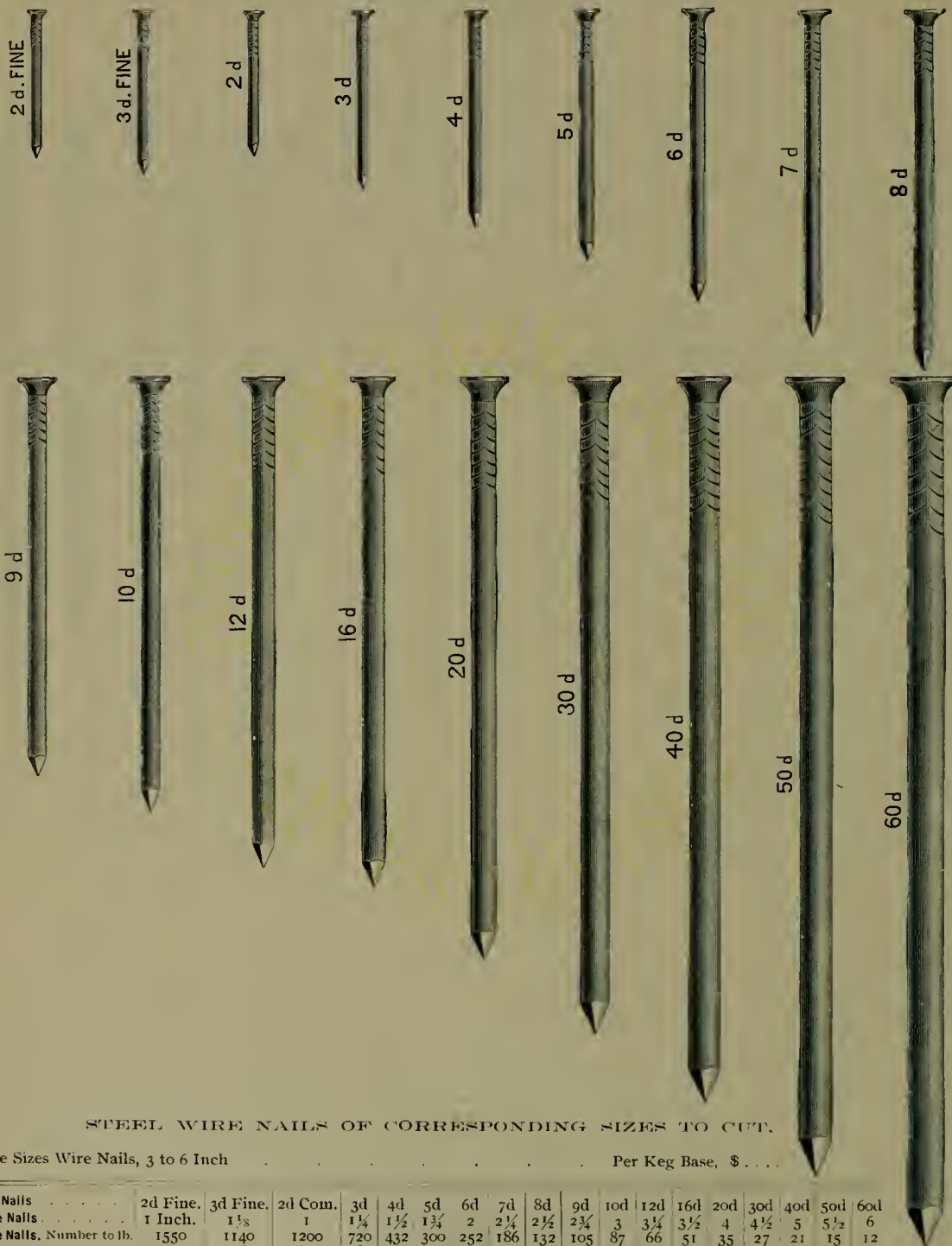
Length, Inch,	4	4 1/2	5	5 1/2	6
Average No. per lb,	26	20	15	12	10





## Standard Steel Wire Nails.

CORRESPONDING WITH SIZES OF CUT NAILS.



STEEL WIRE NAILS OF CORRESPONDING SIZES TO CUT.

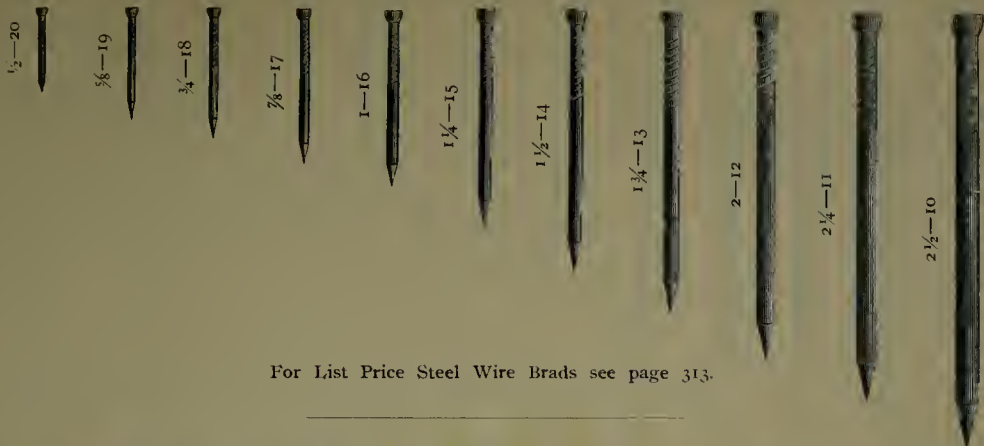
Base Sizes Wire Nails, 3 to 6 Inch

Per Keg Base, \$ . . . .

Cut Nails	2d Fine.	3d Fine.	2d Com.	3d	4d	5d	6d	7d	8d	9d	10d	12d	16d	20d	30d	40d	50d	60d
Wire Nails	1 Inch.	1 1/8	1	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3	3 1/4	3 1/2	4	4 1/2	5	5 1/2	6
Wire Nails. Number to lb.		1550	1140	1200	720	432	300	252	186	132	105	87	66	51	35	27	21	15
Cut Nails. " "		1000	760	800	480	300	200	160	128	92	72	60	44	32	24	18	14	12
Wire Nails.																		
Advance over Base,																		
Per 100 Pound Keg.	\$5 50	4 50	4 00	2 25	1 10	1 10	0 75	0 75	0 35	0 35	..	..	..	..	..	..	..	..

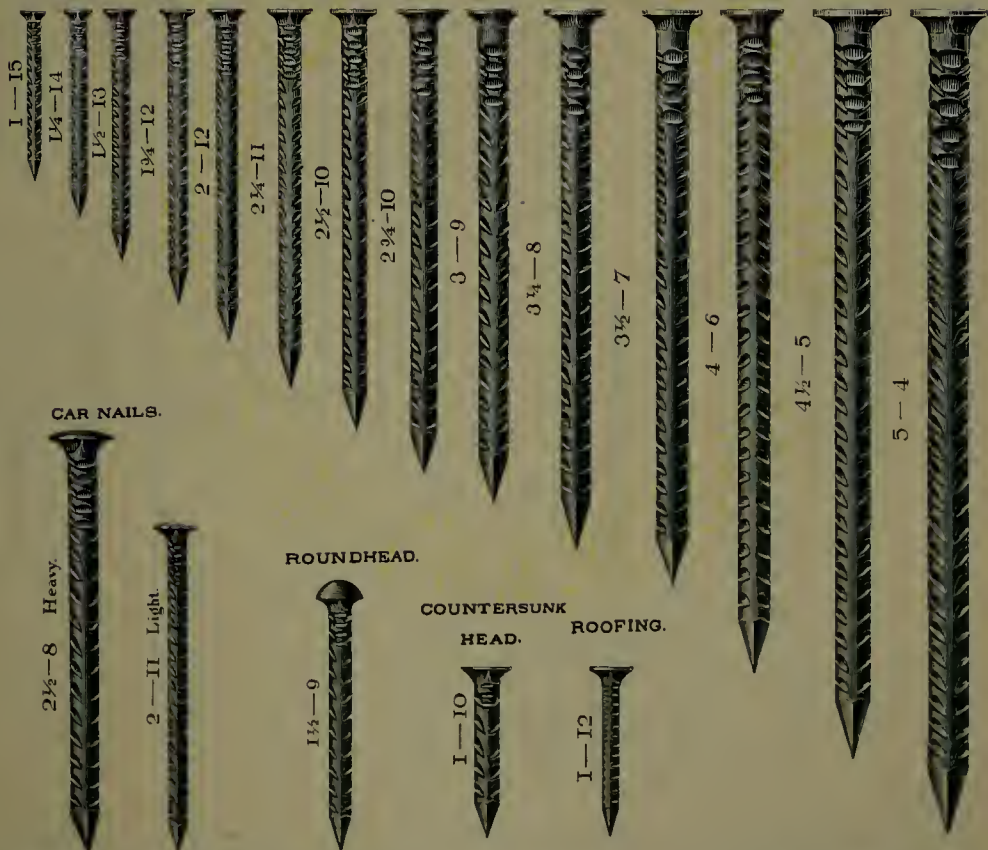
# Steel Wire Brads.

315



For List Price Steel Wire Brads see page 313.

## Barbed Wire Nails.—Flat Head.



Barbed Wire Nails, except Roofing, add 1 cent per pound to List of Steel Wire Nails, page 313.  
Special Heads or Points add 1 cent per pound to same List.

## Barbed Roofing Nails.

100 Pound Kegs		Per Keg Base, \$					
Size of Cut Nails,	3/4 Inch	7/8 Inch	2d	3d	4d	5d	6d
Size <b>Roofing Nails</b> , Inch,	3/4	7/8	1	1 1/4	1 1/2	1 3/4	2
Wire Number,	13	12	12	11	10	10	9
Advance over Base, per Keg,	\$4 50	3 50	3 00	2 25	1 75	1 50	1 25

# Horse Shoe Nails.



## "GLOBE" HORSE SHOE NAILS.

The "GLOBE HORSE SHOE NAILS" are made from Blanks, pressed or cut from Cold Plates. These Blanks are cold rolled into the required thickness, widths and lengths for Nails, with a bevel at the pointing ends. These bevel ends are trimmed by removing the surplus iron each side, so as to form the point; thus we give and claim a uniformity in the stiffness, thickness, lengths, widths and points, and thinner, safer, lighter Nails, that can be driven without bending, clinched easily and well without breaking, than are made by any other process. They are manufactured in oil, which prevents rust in transportation.

Size,	5	6	7	8	9	10
Per Pound	\$0 26	0 23	0 21	0 20	0 19	0 18

## "PUTNAM" HORSE SHOE NAILS.

The reputation which the Putnam Hot Forged and Hammer Pointed Horse Shoe Nail has already obtained in all parts of the world, places it in the highest rank of machine-made nails. Each nail is made separately. The iron, when nearly at a welding heat, is drawn out under hammers, receiving so light elastic blows, by which means a firmer and tougher and more compact nail is made than is possible by other processes. In the pointing, as well as forging, they have endeavored to follow the hand process as nearly as possible.

Size,	5	6	7	8	9	10
Per Pound,	\$0 27	0 24	0 22	0 21	0 20	0 19

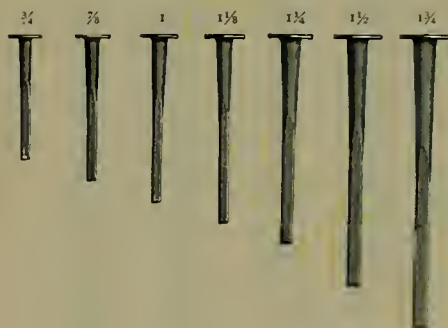
## "PUTNAM'S" PLATE NAILS.

No.	2	3
Per Pound,	\$2 50	1 25

## "NORTH-WESTERN" HORSE SHOE NAILS.

Size,	5	6	7	8	9	10
Per Pound,	\$0 28	0 25	0 23	0 22	0 21	0 20

## Clout Nails.



## Finishing Nails.

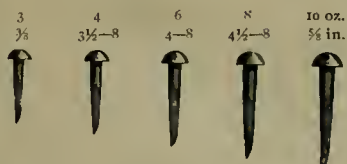


## PRICE OF CLOUT AND FINISHING NAILS.

Inch,	3/8	1/2	5/8	3/4	7/8	1	1 1/8	1 1/4	1 1/2	1 3/4	2
Iron, per Pound,	\$0 48	0 32	0 26	0 22	0 20	0 18	0 16	0 15	0 14	0 13	0 13

## PRICES FOR GALVANIZED GIVEN ON APPLICATION.

## Round Head Hungarian Nails.



Inch,	2 & 2 1/2—8	3 & 3 1/2—8	4 & 4 1/2—8 and Longer.
American Iron, Per Pound,	\$0 26	0 22	0 20

## PRICE PER DOZEN PAPERS.

Ounce,	4	6	8	10	12
American Iron, Half Weight,	\$0 45	0 55	0 65	0 75	0 90

## Chair Nails.

Inch,	1/2	5/8	3/4	7/8	1	1 1/8
Per Pound,	\$0 36	0 30	0 26	0 24	0 22	0 20

## Cigar Box Nails.

Inch,	1/2	5/8
Per Pound	\$0 32	0 28



# American Iron Cut Tacks.

317



## PRICE PER DOZEN PAPERS.

Ounce,	1	1 1/2	2	2 1/2	3	4	6	8	10	12	14	16	18	20	22	24
Half Weight, \$	0.40	0.45	0.45	0.50	0.55	0.60	0.65	0.75	0.80	0.90	1.00	1.10	1.20	1.30	1.40	1.50
Length, In.,	3/16	3 1/2/16	4/16	5/16	6/16	7/16	8/16	9/16	10/16	11/16	12/16	13/16	14/16	15/16	16/16	18/16

# Swedes Iron Cut Tacks, and Upholsterers.

## PRICE PER DOZEN PAPERS.

Oz.,	1/2	3/4	1	1 1/2	2	2 1/2	3	4	6	8	10	12	14	16	18	20	22	24
Full, \$	0.60	0.70	0.80	0.90	1.00	1.10	1.20	1.40	1.60	1.90	2.20	2.50	2.80	3.00	3.30	3.60	3.80	4.00

# Tinned and Galvanized Swedes Cut Tacks, in Bulk.

Inch, 1/2  
Per Pound, \$0.44

3/8  
0.35

3/4 and Longer.  
0.31

# Tinned Large Head Carpet Tacks.



## PRICE PER DOZEN PAPERS.

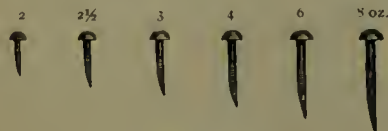
	Ounce, 4	6	8	10	12
Swedes Iron, Half Weight, \$	0.90	1.00	1.15	1.30	1.50
American " " " \$	0.80	0.90	1.00	1.10	1.20

# Large Head Carpet Tacks.

## PRICE PER DOZEN PAPERS.

	Ounce, 4	6	8	10	12
American Iron, Half Weight, \$	0.60	0.65	0.75	0.80	0.90

# Gimp and Lace Tacks.



## SWEDES IRON.

## PRICE PER DOZEN PAPERS

Ounce,	1	1 1/2	2	2 1/2	3	4	6	8	10	12	14	16	18
Half Weight, \$	0.60	0.65	0.70	0.75	0.80	0.90	1.00	1.10	1.20	1.35	1.45	1.55	1.75

# Leather Head Carpet Tacks.

## IN PAPERS OF ONE HUNDRED

Ounce,	4	6	8	10	12	14
Per Dozen Papers, \$	0.24	0.26	0.28	0.30	0.32	0.34

## Steel Carpet Tacks.



6, 8, 10 and 12 Ounce Sizes, all put up in Papers of 2 Ounce Weight.

Blued, all Sizes

Per Dozen Papers, \$0 30 | Tinned, all Sizes

Per Dozen Papers, \$0 40

## Copper Tacks.

 $\frac{3}{8}$  InchPer Pound, \$0 30 |  $\frac{7}{16}$  Inch

Per Pound, \$0 66

 $\frac{1}{2}$  Inch and Louger

Per Pound, \$0 56

## Double Pointed Tacks.



Full Size Cuts, No. 9.

No. 10.

No. 11.

No. 12.

No. 14.

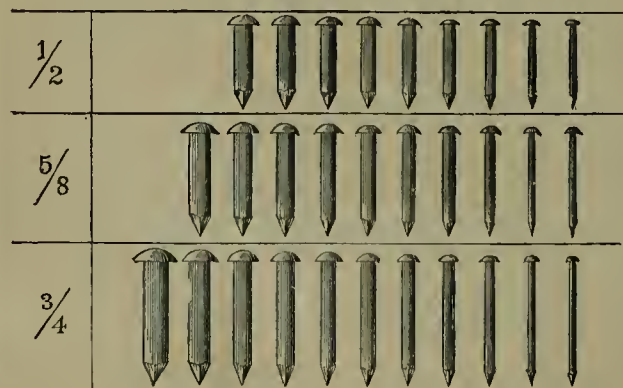
Tinned and Blued.

Nos.	9	10	11	12	14
Per Box,	\$0 10	0 10	0 10	0 12	0 15
Per Dozen,	\$1 20	1 20	1 20	1 44	1 80

## Escutcheon Pins.—Brass.

Nos. 10 12 13 14 15 16 17 18 19 20 21

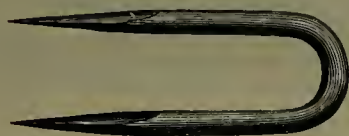
IN POUND BOXES.



PRICE PER POUND.

Inch.	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1
No. 10			\$0 74	\$0 70	\$0 68	\$0 66	\$0 66	\$0 64
No. 11			0 74	0 70	0 68	0 66	0 66	0 64
No. 12			0 76	0 72	0 70	0 68	0 68	0 66
No. 13			0 78	0 72	0 72	0 70	0 68	0 68
No. 14		\$0 88	0 80	0 76	0 74	0 72	0 72	0 70
No. 15		0 90	0 82	0 78	0 76	0 74	0 74	0 72
No. 16		0 94	0 86	0 82	0 80	0 78	0 76	0 76
No. 17		1 00	0 90	0 86	0 82	0 80	0 78	0 78
No. 18		1 08	0 98	0 92	0 88	0 86	0 84	0 84
No. 19		1 18	1 08	0 98	0 92	0 88	0 88	0 92
No. 20	\$1 72	1 32	1 22	1 12	1 02	1 00	1 00	1 02
No. 21	1 92	1 52	1 32	1 22	1 16	1 12	1 12	1 18
No. 22	2 12	1 72	1 52	1 32	1 32	1 42		

## Wrought Staples.



Full Size Cut of 2 Inch.

MADE BY HAND FROM NORWAY IRON.

### No. 5, Wrought Iron.

Inch,	1	1¼	1½	1¾	2	2¼	2½	2¾	3	3½	4	4½	5
Per Gross,	\$1 20	1 20	1 25	1 50	1 70	2 00	2 35	2 65	3 20	3 70	5 25	6 50	7 00

### No. 7, Galvanized Wrought Iron.

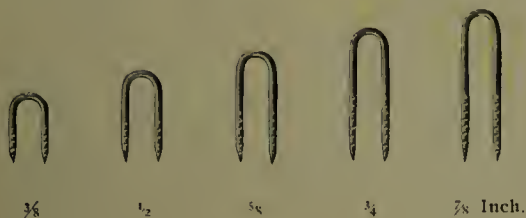
Inch,	1	1¼	1½	1¾	2	2¼	2½	2¾	3	3½	4	4½	5
Per Gross,	\$1 65	1 80	2 00	2 75	3 00	3 75	4 75	5 50	6 25	7 30	10 00	14 00	15 50

## Brass Staples for Ship Use.

PRICES QUOTED ON APPLICATION.

## Barbed Blind Staples.

## Clinch Staples.

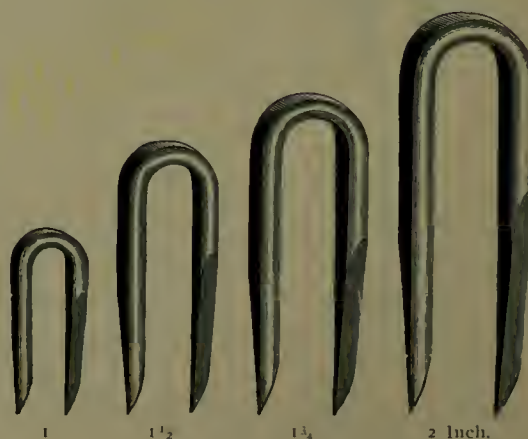


ABOVE CUTS FULL SIZE.

NEEDLE POINTED, ROUND WIRE.

### No. 25, Coppered Wire.

Inch,	3/8	1/2	5/8	3/4	7/8
Per Pound,	\$0 35	0 30	0 30	0 30	0 30



PUT UP IN POUND BOXES.

COPPER FINISH.

Made from the Best Swedish Iron.

Sizes, 1 to 2 Inch	Per Pound, \$0 50
--------------------	-------------------



# Barbed Fence Wire.

## THE "CACTUS" TWO POINTED STEEL BARBED WIRE.



Weights  $15\frac{1}{2}$  Ounces per Rod, or 308 Pounds per Mile. Barbs  $3\frac{1}{2}$  Inches apart.

## THE "CACTUS" FOUR POINTED STEEL BARBED WIRE.



END VIEW.

Regular Barbs 6 Inches apart.  $16\frac{1}{2}$  Ounces per Rod. 330 Pounds per Mile.  
Thick-set "  $3\frac{1}{2}$  " "  $18\frac{1}{2}$  " " " 370 " " "

**Painted** . . . . . Per Pound, \$ . . . . | **Galvanized** . . . . . Per Pound, \$ . . . .

# Wire Fence Staples.

SELF CLINCHING AND POINTED.



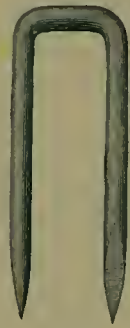
$1\frac{1}{4}$  Inch.



$\frac{7}{8}$  Inch.



$1\frac{1}{4}$  Inch.



$1\frac{1}{4}$  Inch.

PLAIN AND GALVANIZED.

SIZE OF WIRE.	No. 8		No. 9			No. 10				No. 11		
Length in Inches . . . . .	2	$1\frac{3}{4}$	2	$1\frac{3}{4}$	$1\frac{1}{2}$	2	$1\frac{3}{4}$	$1\frac{1}{2}$	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{1}{4}$	1
Number to the Pound—about . . . . .	50	60	60	77	81	82	95	103	120	150	157	185
Price per Pound . . . . .	\$0 10		0 10			0 11				0 11		

SIZE OF WIRE.	No. 12		No. 13		No. 14		No. 15	No. 16	No. 17
Length in Inches . . . . .	$1\frac{1}{4}$	1	$1\frac{1}{4}$	1	1	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$
Number to the Pound—about . . . . .	200	220	227	292	380	480	675	845	970
Price per Pound . . . . .	\$0 11 $\frac{1}{2}$		0 12 $\frac{1}{2}$		0 12 $\frac{1}{2}$		0 14	0 14	0 15

# Round Wire Ropes.



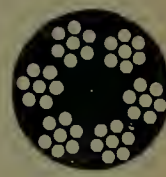
Showing Lay of Strand and Rope as usually made.

## PRICE LIST PER POUND.

Circumference.	Diameter . . . .	Refined Crucible Steel Wire Rope.		Refined Iron Wire Rope.		Galvanized Wire Rope.		Diameter . . . .	Circumference.
		Flexible.	Coarse.	Flexible.	Coarse.	Flexible.	Coarse.		
1	5/16	\$0 60	\$0 37	\$0 43	\$0 24	\$0 50	\$0 23	5/16	1
1 1/4	3/8	0 46	0 35	0 32	0 20	0 34	0 21	3/8	1 1/4
1 1/2	7/16	0 39	0 30	0 26	0 18	0 28	0 19 1/2	7/16	1 1/2
1 3/4	1/2	0 36	0 27	0 21	0 16	0 25	0 17 1/2	1/2	1 3/4
2	5/8	0 32	0 26 1/2	0 18	0 15	0 20	0 16	5/8	2
2 1/4	11/16	0 30	0 25	0 17	0 14	0 18 1/2	0 14 1/2	11/16	2 1/4
2 1/2	3/4	0 30	0 25	0 17	0 14	0 18 1/2	0 14 1/2	3/4	2 1/2
2 3/4	13/16	0 28	0 23	0 16	0 13	0 17 1/2	0 13 1/2	13/16	2 3/4
3	7/8	0 27	0 22	0 15	0 12	0 17	0 13	7/8	3
3 1/4	15/16	0 26 1/2	0 21 1/2	0 14	0 11 1/2	0 16 1/2	0 12 1/2	15/16	3 1/4
3 1/2	1 1/16	0 26	0 21	0 13 1/2	0 11	0 16	0 12	1 1/16	3 1/2
3 3/4	1 1/8	0 25	0 20 1/2	0 13	0 10 3/4	0 15 1/2	0 11 3/4	1 1/8	3 3/4
4	1 3/16	0 24	0 20 1/2	0 12 1/2	0 10 1/2	0 15	0 11 1/2	1 3/16	4
	1 1/4	0 23	0 20	0 12	0 10 1/2	0 14	0 11 1/4	1 1/4	



Cross Section of Flexible Wire Rope.



Cross Section of Coarse Wire Rope.

Coarse Ropes are made 6 strands of 7 wires. Flexible Ropes, 6 strands of 19 wires. Smaller than 1 1/4, 6 strands of 12 wires. Refined Charcoal Iron Wire Rope, same list as Iron.

NOTICE.—No cut pieces taken back. Prices subject to change without notice.

## Tabular Scale

Showing approximately the comparative strength, sizes and weights per 100 feet in length of Iron Wire Rope, Steel Wire Rope, Hemp Rope and Chain. The sizes of each horizontal line are of equal strength.

Capacity of the Ropes and Chain.		Round Charcoal Iron Wire Rope.		Round Crucible Steel Wire Rope.		Round Hemp Rope.		Flat Charcoal Wire Rope.		Flat Crucible Steel Wire Rope.		Iron Chain.	
Working Load Lbs.	Breaking Strain Tons.	Circum. in inches.	Weight per 100 ft.	Circum. in inches.	Weight per 100 ft.	Circum. in inches.	Weight per 100 ft.	Size in Ins. width, thks.	Weight per 100 feet.	Size in Ins. width, thks.	Weight per 100 feet.	Diameter of Link.	Weight per 100 feet.
300	1	1	17	...	...	2 3/4	33	...	...	...	...	1/4	66
550	1 1/2	1 1/4	23	...	...	3	50	...	...	...	...	5/16	92
800	2 1/2	1 1/2	30	1	17	3 1/4	55	...	...	...	...	3/8	133
1,500	4 1/2	1 3/4	50	1 1/2	30	4 1/4	78	...	...	...	...	7/16	180
2,000	6	2	65	1 5/8	41	5	100	...	...	...	...	1/2	260
2,300	7 1/2	2 1/4	80	1 3/4	50	6	160	...	...	...	...	9/16	300
3,300	10	2 1/2	100	2	65	6 1/2	166	...	...	...	...	...	...
4,200	12 1/2	2 3/4	124	2 1/8	75	7	200	2 x 3/8	144	...	...	5/8	400
5,000	15	3	145	2 1/4	80	7 1/2	234	2 1/4 x 3/8	154	...	...	11/16	460
6,000	18	3 1/4	158	2 3/8	88	7 3/4	250	2 1/2 x 3/8	171	...	...	...	...
7,000	21	3 1/2	180	2 1/2	100	8 1/4	284	3 x 3/8	220	2 x 3/8	144	3/4	533
8,000	24	3 3/4	200	3	140	9	333	3 x 1/2	270	2 1/2 x 3/8	171	13/16	650
9,000	27	4	250	3 1/4	158	10	433	4 x 3/8	275	2 1/2 x 1/2	210	7/8	720
10,000	30	4 1/4	284	3 1/2	190	10 1/2	466	4 x 1/2	345	3 x 3/8	225	15/16	833
11,000	33	4 1/2	320	3 5/8	195	11	500	4 1/2 x 1/2	395	...	...	1	933
12,000	36	4 3/4	350	3 3/4	200	12	567	5 x 1/2	425	3 1/2 x 3/8	242	...	...
13,500	40	5	380	3 7/8	225	13	784	5 1/2 x 1/2	465	3 x 1/2	270	1 1/16	1,000
18,000	55	5 1/2	440	4	250	14	900	6 x 1/2	510	4 x 3/8	275	...	...
22,000	65	6	540	4 1/4	280	16	1166	6 1/2 x 1/2	560	5 x 3/8	356	...	...

NOTE.—Drums or Pulleys should be 2000 times the size of the wire with which the rope is made, and in all cases the rope must lead fair into the pulley.

ALL WIRE ROPES AS WELL AS HEMP ROPES, ARE MEASURED BY THE CIRCUMFERENCE, WHICH INSURES EXACTNESS.

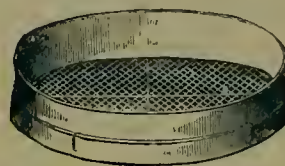


## Shade Cloths.

PRICES.

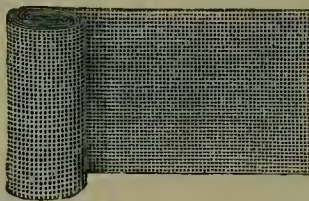
							Per Sqr. Ft.
Plain Green or Drab, . . .	By the Roll of	100	ft. in	Length,	. . .	cts.	
Plain Figured . . . . .	" " " "	100	"	"	. . .	"	
Two Colored Fancy Figured,	" " " "	100	"	"	. . .	"	
Three " " "	" " " "	100	"	"	. . .	"	
Galvanized, . . . . .	" " " "	100	"	"	. . .	"	
Landscape, . . . . .	" " " "	100	"	"	. . .	"	

## Riddles for Foundry Use, Etc.



## FOUNDRY RIDDLE

18	Inch Diameter, Iron Wire	.	.	.	Per Dozen, \$10 00
20	" " " "	.	.	.	" " 12 00
18	" " Brass	"	.	.	" " 20 00
20	" " " "	.	.	.	" " 30 00



The Mesh in Wire Cloth is the distance from  
Center to Center of Wire.

No length less than 100 feet shall be understood to be a Roll.

WIRE CLOTH, PARTLY UNROLLED.

## Market Grade Iron Wire Cloth.

No.	2	Mesh, made from No.	16	Wire, per Square Foot,	\$	12
No. 2 1/2	"	"	17	"	"	0 12
No. 3	"	"	18	"	"	0 12
No. 4	"	"	20	"	"	0 12
No. 5	"	"	21	"	"	0 12
No. 6	"	"	22	"	"	0 12
No. 7	"	"	23	"	"	0 12
No. 8	"	"	24	"	"	0 12
No. 9	"	"	25	"	"	0 12
No. 10	"	"	26	"	"	0 12
No. 12	"	"	27	"	"	0 12
No. 14	"	"	29	"	"	0 12
No. 16	"	"	30	"	"	0 12
No. 18	"	"	32	"	"	0 12
No. 20	"	"	34	"	"	0 12

## Heavy Steel Wire Battery Screen Cloth.

No.	20	Mesh, made from	No.	26	Wire, per Square Foot,	\$	43
No.	24	"	"	27	"	"	0 55
No.	30	"	"	29	"	"	0 56
No.	35	"	"	31	"	"	0 57
No.	40	"	"	32	"	"	0 57
No.	50	"	"	35	"	"	0 59
No.	60	"	"	36	"	"	0 68
No.	64	"	"	37	"	"	0 75
No.	70	"	"	38	"	"	0 80
No.	74	"	"	39	"	"	0 90
No.	80	"	"	40	"	"	1 05

Brass Wire Battery Screen Cloth.

No. 2	Mesh, made from No. 16 Wire, per Square Foot,	\$0 50	No. 22	Mesh, made from No. 29 Wire, per Square Foot,	\$0 50
No. 3	" " " 17 " " "	0 50	No. 24	" " " 30 " " "	0 50
No. 4	" " " 18 " " "	0 50	No. 30	" " " 31 " " "	0 52
No. 5	" " " 19 " " "	0 50	No. 40	" " " 33 " " "	0 55
No. 6	" " " 20 " " "	0 50	No. 50	" " " 35 " " "	0 58
No. 8	" " " 22 " " "	0 50	No. 60	" " " 36 " " "	0 60
No. 10	" " " 23 " " "	0 50	No. 70	" " " 37 " " "	0 70
No. 12	" " " 24 " " "	0 50	No. 80	" " " 38 " " "	0 90
No. 14	" " " 25 " " "	0 50	No. 90	" " " 39 " " "	1 10
No. 16	" " " 26 " " "	0 50	No. 100	" " " 40 " " "	1 30
No. 18	" " " 27 " " "	0 50	No. 120	" " " 42 " " "	1 75
No. 20	" " " 28 " " "	0 50	No. 150	" " " 43 " " "	3 00



# Mining or Battery Screens.

PUNCHED IN RUSSIA SHEET IRON.



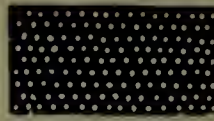
SLOT BURRED.

Opening 1/4 Inch Long.



ANGLE SLOT PUNCHED.

Opening 1/4 and 1/2 Inch Long.



ROUND PUNCHED.

Assorted Nos 1 to 7.

When ordering give the full length and width of the Screen wanted.

Also state which Pattern you Prefer, either SLOT BURRED, ANGLE SLOT PUNCHED or ROUND PUNCHED.

ANGLE SLOT AND BURRED SLOT AS COMPARED WITH WIRE CLOTH.

Per Sqr. Ft.								Per Sqr. Ft.							
No. 3	openings are equal in width to No. 15 Wire Cloth,	\$0	80					No. 8	openings are equal in width to No. 40 Wire Cloth,	\$0	80				
No. 4	" " " " " 20 " "	0	80					No. 9	" " " " " 45 " "	0	80				
No. 5	" " " " " 25 " "	0	80					No. 10	" " " " " 50 " "	0	90				
No. 6	" " " " " 30 " "	0	80					No. 11	" " " " " 55 " "	1	10				
No. 7	" " " " " 35 " "	0	80					No. 12	" " " " " 60 " "	1	20				

Round Punched Holes from No. 1 to No. 7 are equal to one number finer than Angle Slot in the openings.

## "Duc" Steel Ore Bucket.

FOR HANDLING

GOLD AND SILVER QUARTZ, ROCK, BROKEN STONE, ETC., ETC.



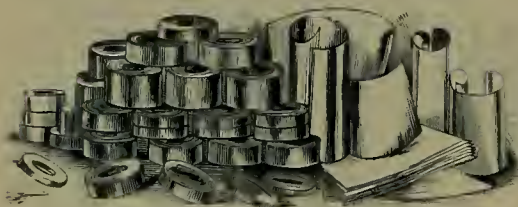
TABLE OF DIMENSIONS AND CAPACITIES.

On Belt (width). Inch.	Projection (broad).	Deep.	Capacity in Cubic Inches.	Price, Each.	
				HEAVY.	LIGHT.
4	2 3/4	3	13 3/4	\$0 37 1/2	\$0 18
4 1/2	2 3/8	3	17 1/2	0 42	0 20
5	3 1/4	3 3/8	24 1/2	0 47	0 23
5 1/2	3 3/8	3 3/8	28	0 50	0 25
6	4 1/8	3 3/8	46	0 55	0 30
7	4 3/8	4 1/8	65	0 65	0 38
8	5 3/8	4 3/4	104	0 70	0 40
9	5 3/4	4 3/8	131	0 78	0 50
10	6 1/8	5 1/8	158	0 85	...

Light Buckets are for Flour Mills and Brewers Use.

# Brass and Copper. Steel and Iron Wire, Etc.

## BRASS, IN ROLLS AND SHEETS.



Brown &amp; Sharp's Gauge the Standard

### Sheet Brass. 24 x 48 Inch.

4 Pound and Lighter	Per Pound, \$0 45
5 " " Heavier	" " 0 35

### Brass, in Rolls.

To 1 1/2 Inch Wide. Nos. to 24	Per Pound, \$0 26
" 1 1/2 " " " 25 " 28	" " 0 28
" 1 1/2 " " " 29 and 30	" " 0 30

### Brass, Stencil.

18 Inch Wide. Nos. 30 to 32	Per Pound, \$0 34
18 " " " 33 and 34	" " 0 36

## BRASS RODS.

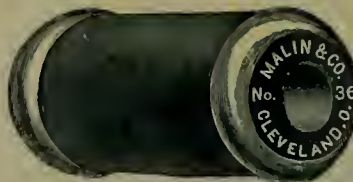
NOT LESS THAN TWO FEET LENGTHS.

1/2 Inch to 1 1/2 Inch Diameter, both inclusive, per Pound, \$0 30  
 Hexagon, Octagon and Square, 4 cents per pound advance over Round Rods.  
 Half Round and Fancy Shapes, not less than 6 cents advance over Round Rods.  
 Rods less than 2 feet lengths, add to above prices 2 cents per pound for each cut.

## WIRE ON SPOOLS.

MALIN & Co.'s Patent Spooled Wire costs more per pound than Wire in coils; but you can sell it at a higher price and make a larger profit.

This manner of handling Wire is as convenient for the consumer as it is for the dealer.



Price per Dozen Spools, 1 1/4 Pound Each.

NO. OF WIRE GAUGE.	16	18	20	22	24	26
Annealed Steel	\$0 96	\$1 02	\$1 10	\$1 14	\$1 20	\$1 20
Tinned "	1 20	1 25	1 32	1 40	1 50	1 50
Brass Wire	\$2 00	2 06	2 20	2 40	2 65	2 65
Copper "	2 20	2 20	2 20	2 40	2 60	2 70

## BATTERY COPPER—IN SHEETS.

COLD ROLLED.

Size, 30 x 60 Inches, Weights from 20 to 80 Pounds per Sheet

Per Pound, \$ . . .

BRASS AND COPPER OF ANY WIDTH AND LENGTH, FOR SPECIAL WORK, MADE TO ORDER WHEN SO DESIRED.

## BRASS, COPPER, STEEL AND IRON WIRE.



WIRE IN COILS.  
 Old English Gauge the Standard.

PER POUND.	Brass Wire.	Spring Brass.	Copper Wire.	Steel Wire.
All Nos. to No. 16, inclusive	\$0 22	\$0 24	\$0 30	To No. 6, \$0 23
Nos. 17 and 18	0 23	0 25	0 31	7 to 9, 0 24
" 19 " 20	0 24	0 26	0 32	10 and 11, 0 25
No. 21	0 25	0 27	0 33	12 " 13, 0 28
" 22	0 26	0 28	0 34	14 " 15, 0 32
" 23	0 28	0 30	0 36	16 " 17, 0 34
" 24	0 30	0 32	0 38	18 " 19, 0 38
" 25	0 32	0 34	0 40	20, 0 40
" 26	0 35	0 37	0 43	
" 27	0 38	0 40	0 46	
" 28	0 42	0 44	0 51	
" 29	0 45	0 47	0 54	
" 30	0 48	0 50	0 62	

Low Brass Wire, 4 cents per pound advance.

Fancy Wire, not less than 10 cents advance on Round Wire.

Flat, Square and Half Round Wire, 4 cents advance on Round Wire

TO  
 ORDER  
 ONLY.

## IRON WIRE.

FULL COILS—SIXTY-THREE POUNDS.

No. 0 to 9	10 & 11	12	13 & 14	15 & 16	17	18
Per lb, \$0 10	0 11	0 11 1/2	0 12 1/2	0 14	0 15	0 16

ANNEALED, GALVANIZED AND BRIGHT, SAME LIST.

Keep a good assortment of sizes, do away with the broken bundle business entirely, and devote the time you would spend in wrestling with rusty snarls to some better purpose.

Hair Wire—Small Spools—1 Dozen in a Box.

GAUGE OF WIRE.	28	30	32	34	36
Black Per Gross,	\$3 50	\$3 75	\$4 00	\$4 25	\$5 52
Plated " "	4 25	4 50	4 75	5 00	6 00

# Tables of Sizes and Weights—Wire, Tubing, Etc.

325

## WEIGHT OF WIRE PER 100 FEET.

Thickness STUBS' Wire Gauge.

No.	IRON.	STEEL.	COPPER.	BRASS.
0	30.63	30.92	34.99	33.05
1	23.85	24.07	27.24	25.73
2	21.37	21.57	24.41	23.06
3	17.78	17.94	20.3	19.18
4	15.01	15.15	17.15	16.19
5	12.82	12.95	14.65	13.84
6	10.92	11.02	12.47	11.78
7	8.586	8.667	9.807	9.263
8	7.214	7.283	8.241	7.783
9	5.805	5.859	6.63	6.262
10	4.758	4.803	5.435	5.133
11	3.816	3.852	4.359	4.117
12	3.148	3.178	3.596	3.397
13	2.392	2.414	2.732	2.58
14	1.826	1.843	2.085	1.969
15	1.374	1.387	1.569	1.482
16	1.119	1.13	1.279	1.208
17	.8915	.9	1.018	.9618
18	.6363	.6423	.7268	.6864
19	.4675	.472	.534	.5043
20	.3246	.3277	.3709	.3502
21	.2714	.274	.31	.2929
22	.2079	.2098	.2373	.2241
23	.1656	.1672	.1892	.1788
24	.1283	.1296	.1465	.1384
25	.106	.107	.1211	.1144

## WEIGHT OF ROUND BARS

PER FOOT.

DIAMETER. INCHES.	BRASS.	COPPER.
1/16	.011	.011
1/8	.045	.046
3/16	.1	.105
1/4	.175	.187
5/16	.275	.295
3/8	.395	.424
7/16	.54	.575
1/2	.71	.75
9/16	.9	.95
5/8	1.1	1.17
11/16	1.35	1.42
3/4	1.6	1.7
13/16	1.85	2.
7/8	2.15	2.3
15/16	2.45	2.64
1	2.85	3.01
1 1/16	3.20	3.41
1 1/8	3.57	3.85
1 3/16	3.97	4.29
1 1/4	4.41	4.73

## AVERAGE WEIGHT AND GAUGE OF BATTERY COPPER.

Sheets 30x60 Inches.

GAUGE.	WEIGHT SQUARE FOOT.	WEIGHT OF SHEET.
No. 21	1 lb. 9 oz.	20 lbs.
" 19	2 "	25 "
" 17	2 " 6 "	30 "
" 16	2 " 12 "	35 "
" 15	3 " 3 "	40 "
" 14	4 " 4 "	50 "
" 13	4 " 14 "	60 "
" 12	5 " 6 "	70 "

## Sizes, Weights Etc.,

OF

## SEAMLESS DRAWN TUBING.

STUBS' GAUGE.

## IRON PIPE SIZES.

SEAMLESS DRAWN BRASS AND COPPER TUBES

MADE TO CORRESPOND WITH IRON PIPE,

AND TO FIT IRON PIPE THREADS.

## Weight of Copper

AND

## Brass Plates

BY

American Gauge.

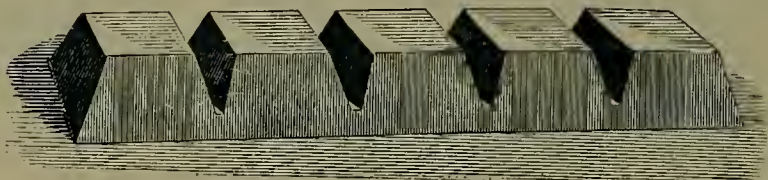
Inches Outside Diameter.	Stubs' Gauge.	Weights Per Foot.		Inches Outside Diameter.	Stubs' Gauge.	Weights Per Foot.		Same as Iron Size.	Outside Diameter.	Thickness. Stubs' Gauge.	Weights per Foot.		No. of Gauge.	Size of Each No. Inch.	Weight of Plates per square foot.	
		Brass. Lbs.	Copper. Lbs.			Brass. Lbs.	Copper. Lbs.				Brass Lbs.	Copper. Lbs.			Copper. Lbs.	Brass. Lbs.
1/4	18	.11	.11	2 1/4	12 1/2 & 13 1/2	2.35	2.49	1 1/8	13/32	15	.27	.20	10	.10189	4.6155	4.3609
3/8	18	.19	.19	2 3/8	"	2.52	2.67	1 1/4	17/32	15	.37	.30	11	.09742	4.1106	3.8838
1/2	18	.25	.26	2 1/2	10 1/2 & 11	3.45	3.60	3/8	21/32	13	.60	.64	12	.08088	3.6606	3.4586
5/8	18	.31	.33	2 5/8	"	3.70	3.95	1/2	1 1/16	12	1.22	1.28	13	.071961	3.2508	3.0799
3/4	17	.46	.49	2 3/4	"	3.80	4.05	3/4	1 1/8	12	1.53	1.74	14	.064084	2.9930	2.7424
7/8	17	.54	.57	3	"	4.20	4.45	1	1 1/4	12	1.85	2.15	15	.057068	2.5852	2.4425
1	16	.67	.74	3 1/4	"	4.55	4.80	1 1/4	1 1/2	11	2.15	2.55	16	.050820	2.3021	2.1751
1 1/8	16	.79	.84	3 1/2	"	4.95	5.20	1 1/2	1 5/8	9	2.52	2.65	17	.045357	2.0501	1.937
1 1/4	15	.97	1.03	3 3/4	"	5.40	5.65	1 3/4	2	8	4.28	4.53	18	.040393	1.8257	1.725
1 3/8	14 1/2	1.16	1.22	4	"	5.60	6.00	2	2 1/8	8	4.93	5.28	19	.035800	1.6258	1.5361
1 1/2	14	1.34	1.42	4 1/4	"	6.00	6.40	2 1/4	2 1/4	7	5.58	5.92	20	.031961	1.4478	1.3679
1 5/8	14	1.47	1.55	4 1/2	"	6.45	6.90	2 1/2	2 3/8	7	6.28	6.68	21	.028462	1.2893	1.2182
1 3/4	13 1/2	1.70	1.80	4 3/4	"	6.70	7.15	2 3/4	2 1/2	6	7.03	7.48	22	.025347	1.1482	1.0849
1 7/8	12 1/2 & 13 1/2	1.94	2.06	5	"	7.15	7.60	3	3 1/2	5	8.35	8.84	23	.022571	1.0225	.99604
2	"	2.08	2.20	5 1/2	10	8.30	8.80	3 1/2	4	4	9.06	9.59	24	.020106	.91053	.86028
2 1/8	"	2.25	2.38	6	10	9.06	9.59	4	4 1/2	3	12.24	12.96	25	.017900	.81087	.76612
													26	.01594	.72208	.68223
													27	.014195	.64303	.60755
													28	.012641	.57264	.54103
													29	.011257	.50994	.48180
													30	.010025	.45413	.42907
													31	.008928	.40444	.38212
													32	.007960	.36014	.34026
													33	.007080	.32072	.30302
													34	.006304	.28557	.26981
													35	.005614	.25411	.24028



## Metals.

We keep in stock the following Metals, which we are unable to price, owing to the fluctuations of the market, but shall at all times quote the lowest price at which the best Metal can be sold.

## BABBIT METAL.



No. 1	2	3	4	★
Per Pound, \$ . . .	. . .	. . .	. . .	. . .

## PHOSPHOR BRONZE.

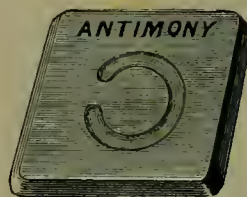
Per Pound . . . . . \$ . . .

## INGOT COPPER.



Per Pound . . . . . \$ . . .

## ANTIMONY.



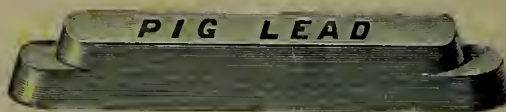
Per Pound . . . . . \$ . . .

## TIN.



Pig . . . . .	Per Pound, \$ . . .	Pig . . . . .	Per Pound, \$ . . .
Bar . . . . .	" " . . .	Bar . . . . .	" " . . .

## LEAD.



## SOLDER.



Extra . . . . .	Per Pound, \$ . . .	No. 1 . . . . .	Per Pound, \$ . . .
Roofing . . . . .	Per Pound, \$ . . .		

## SPELTER.

Standard . . . . .	Per Pound, \$ . . .	Extra Pure . . . . .	Per Pound, \$ . . .
Spelter Solder . . . . .	Per Pound, \$ . . .		

# Metals—Specific Gravity, Weights, Etc.

## Specific Gravity and Weight of Metals and Alloys.

	Specific Gravity	Weight of a Cubic Foot.	Weight of a Cubic Inch.
Aluminium, cast	2560	160 lbs.	.092 lbs.
Antimony, cast	6710	419 "	.243 "
Arsenic	5760	" "	.208 "
Bismuth, cast	9822	613 "	.353 "
Brass, cast	7800	520 "	.280 "
Brass, rolled	8400	527 "	.304 "
Bronze (Copper 8, Tin 1)	8390	525 "	.302 "
Gun Metal, about	8460	528 "	.305 "
Copper, cast	8750	543 "	.315 "
" rolled	8800	548 "	.317 "
" wire	8850	553 "	.321 "
Gold, pure, cast, 24 carat	19253	1204 "	.696 "
" hammered, 24 carat	19300	1217 "	.702 "
Iron, cast	7210	450 "	.260 "
" wrought	7770	485 "	.280 "
Lead, cast	11300	708 "	.408 "
" rolled	11410	712 "	.411 "
Mercury, 40°	15630	978 "	.566 "
" 32°	13610	848 "	.492 "
" 60°	13580	846 "	.490 "
" 212°	11375	836 "	.483 "
Nickel, Plate	8820	509 "	.318 "
Platinum, hammered	21500	1343 "	.775 "
" native, in grains	17500	" "	" "
Silver, pure, cast	10474	654 "	.378 "
" hammered	10510	655 "	.379 "
Steel (Carbon lightens it)	7850	490 "	.283 "
Tin (common average)	7290	455 "	.262 "
Zinc	7000	437 "	.252 "

## Specific Gravity, and Weight to Cubic Foot of Various Materials.

TIMBER.	Specific Gravity.	Weight per cub. foot in pounds.	FLUIDS.	Specific Gravity.	Weight per cub. foot.	STONES, EARTHS, &C	Specific Gravity.	Weight per cub. foot in pounds.
Ash	.8	50	Alcohol	.8	50	Chalk	2.3	243
Beech	.69	43	Ether	.74	46	Clay	2.	125
Birch	.71	44	Oil	.90	56	Coal	1.3	82
Cedar	.48	31	Water, Fresh	1.000	62.4	Coke	.8	50
Deal, Christ'na	.7	44	Water, Sea	1.028	64.1	Earth,		
Elm	.6	37	Artificial			Rammed,	1.6	100
Hornbeam	.75	47	Substances.			Flint	2.6	163
Larch	.55	35	Brick	2.0	124	Gravel	.9	120
Memel	.6	37	Brickwork	1.6	100	Granite	2.6	164
Mahogany,			in Mortar	1.8	112	Grindstone	2.1	131
Spanish	.8	50	Brickwork	1.8	112	Limestone	2.5	156
Oak, English	.87	54	in Cement	1.9	119	Marble	2.7	168
Oak, Canadian	.87	54	Coucrete,	2.2	133	Sand	1.9	120
Pine, Red	.55	41	ordinary	2.2	133	Sandstone	2.5	156
Pine, Yellow	.45	29	in cement	2.2	133	Stone,		
Teak, Monim'n	.8	50	Cement	1.3	81	Bath	1.8	112
Yew	.8	50	Portland	1.	63	Portland,	2.1	131
Miscellaneous.			Roman	2.5	156	York Flag	2.3	143
Asphaltum	.9	56	Glass	2.5	156	Slate	2.8	175
Gutta Percha	.98	61	Lime, quick	1.7	106	Shingle	1.4	90
India Rubber	.94	60	Mortar	1.8	112			
Ivory	1.8	112	Tile	1.8	112			

## Weight of a Cubic Foot of Various Substances, in pounds.

METALS.	WOOD, ETC.
Brass	480.
Gun Metal	543.
Copper	548.
Cast Iron	480.
Wrought Iron	482.
Lead	710.
Mercury	849.
Steel	486.
" Plates	452.
Tin	455.
Zinc, Cast	428.
" Rolled	450.
Live Oak	66.75
Hickory	95.5
Pine, White	34.
Spruce	31.25
Corkwood	15.
Fire Brick	137.
Coal, Anthracite	93.
" Bituminous	80.
Coal, Cannel	94.
Cotton, Bale	14.
" Pressed	22.
Earth, Loose	94.
" Mud	102.
Common Soil	137.
Hay, Bale	9.5
" Pressed	25.

## Wires of Various Metals Compared.

The following table is given by Mr. David Kirkaldy, of London, to exhibit the tensile strength and resistance to tension of wire made of various materials.

Specimens Tested.	Pulling Stress per square inch.	
	Hard. Pounds.	Annealed. Pounds.
Copper	63,122	37,002
Brass	81,156	51,550
Charcoal Iron	68,334	40,060
Coke Iron	65,321	61,294
Steel	120,976	74,637
Phosphor Bronze, No. 1	159,515	58,853
" " No. 2	151,119	64,569
" " No. 3	139,141	54,111
" " No. 4	120,900	53,371

Specimens Tested.	Extension per cent.		No. twists in 5 inches.
	Annealed.	Hard.	
Copper	34.1	86.8	96
Brass	39.5	14.7	57
Charcoal Iron	28.	48.	87
Coke Iron	17.	26.	44
Steel	10.9	*	79
Phosphor Bronze, No. 1	46.6	13.3	66
" " No. 2	42.8	15.8	60
" " No. 3	44.9	17.3	53
" " No. 4	42.4	13.	124

Of the eight pieces of steel tested three stood from 40 to 45 twists, and five stood from 1½ to 4 twists.

## Relative Malleability of the Metals.

1. Gold.
2. Silver.
3. Copper.
4. Tin.
5. Platinum.
6. Lead.
7. Zinc.
8. Iron.

## Specific Resistances of Metals.

Copper	1.00	Mercury	50.00	Brass Wire	3.88
Silver	.98	Palladium	5.50	German Sil. Wire	11.30
Gold	1.13	Platinum	6.78	Nickel Wire	7.70
Iron	5.63	Tin Wire	6.80	Calcium Wire	2.61
Lead	10.76	Zinc Wire	3.70	Aluminium Wire	1.75

## Conductors and Non-Conductors.

In the following list each substance named conducts better than that which precedes it; the first being the best insulator, the last the best conductor.

1. Dry Air.
2. Paraffine.
3. Hard Rubber.
4. Shellac.
5. India Rubber.
6. Gutta Percha.
7. Sulphur.
8. Glass.
9. Silk.
10. Dry Paper.
11. Porcelain.
12. Dry Wood.
13. Dry Ice.
14. Water.
15. Saline Solutions.
16. Acids.
17. Charcoal or Coke.
18. Mercury.
19. Lead.
20. Tin.
21. Iron.
22. Platinum.
23. Zinc.
24. Gold.
25. Copper.
26. Silver.

When a wire of small resistance and an insulator of great resistance are employed upon a line, the highest excellence is secured, since the lower the resistance in the former the better is the transmission, and the higher the resistance in the latter, the less the waste of the current.

## Composition of Various Alloys.

Alloys.	Zinc.	Tin.	Cop- per.	Anti- mony.	Lead.
Rabbit metal	10	1	1		
Bell metal	5	16			
Brass engine bearings	1/4	13	112		
" (tough) for engine works	15	15	160		
" for heavy bearings	5	25	160		
" yellow for turning	1	2			
" for locomotive bearings	1	7	64		
" for straps and glands	1	16	130		
Flanges to stand brazing	1	32			
Metal to expand in cooling	40	60			
Muntz's sheathing	1	100	17		
Pewter	1	1			
Spelter	5	2	90		
Statuary bronze	5	2	90		

Solders.					
For lead	1				1½
" tin	1				2
" pewter	2				1
" brazing (soft)	3				
" " "	1				
" " (hard)	1				
" " (hardest)	1				

## Pipe Fittings.



RETURN BENDS.



ELBOW.



TEE.



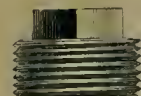
CROSS.



SOCKETS.



CAP.



PLUG.



STREET ELBOWS.



CLOSE NIPPLE.



BUSHING.



SHOULDER NIPPLE.



45 DEGREE ELBOWS.



REDUCERS.



LOCK NUT.



UNIONS.

## POUND PIPE FITTINGS.

Class 1.

**Black** per pound, \$0 13; **Galvanized**, \$0 20.  
Elbows and Tees, 2 in. and larger.

Class 2.

**Black** per pound, \$0 15; **Galvanized**, \$0 22.  
Elbows and Tees, 1 in. to 1 1/2 in. inclusive.  
Street Elbows, 1 in. and larger.  
Socket Couplings, 1 1/4 in. and larger.

Class 3.

**Black** per pound, \$0 17; **Galvanized**, \$0 24.  
Elbows and Tees, 3/8 in. to 3/4 in., inclusive.  
Street Elbows, 3/8 in. to 3/4 in. inclusive.  
Socket Couplings, 3/8 in. to 1 in. inclusive.  
Reducers, 1/2 in. and larger.  
Elbows Side Outlet, all sizes.  
Crosses, all sizes.  
Drop Elbows and Tees, all sizes.  
Caps, all sizes.  
Waste Nuts, all sizes.  
Chandelier Hooks, all sizes.  
Return Bends, all sizes.  
Pipe Straps, all sizes.

Class 4.

**Black** per pound, \$0 28; **Galvanized**, \$0 38.  
Elbows and Tees, 1/8 and 1/4 in.  
Reducers, 1/4 to 1/8 and 3/8 to 1/4 in.  
Socket Couplings, 1/8 and 1/4 in.

## Forty-five Degree Elbows. Cast Iron.

Size, Inch,	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4
Each, \$0 20		0 25	0 35	0 50	1 30	1 60	1 90	2 50

## Black Fittings.

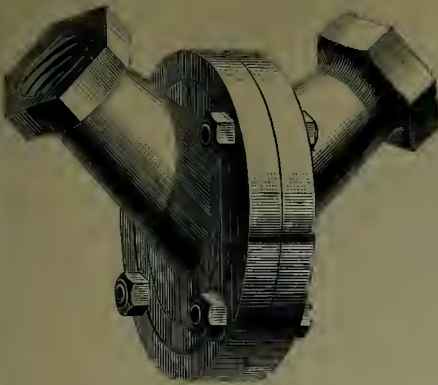
Sizes, Inches		1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	5	6
Unions	Each,	\$0 15	\$0 18	\$0 20	\$0 28	\$0 34	\$0 46	\$0 60	\$0 80	\$1 50	\$2 10	\$3 00	\$4 00	....	....
Plugs	"	0 03	0 03	0 04	0 05	0 06	0 10	0 13	0 20	0 35	0 50	0 75	0 85	\$1 75	\$2 40
Bushings	"	0 05	0 05	0 06	0 07	0 09	0 13	0 17	0 27	0 42	0 60	0 80	1 00	1 85	2 50
Caps	"	0 03	0 03	0 05	0 08	0 11	0 15	0 22	0 30	0 50	0 80	1 10	1 30	2 00	2 35
Nipples, Short	"	0 05	0 06	0 07	0 09	0 10	0 14	0 17	0 25	0 56	0 75	1 00	1 25	2 00	2 75
" Long	"	0 07	0 09	0 10	0 11	0 15	0 20	0 25	0 35	0 75	0 95	1 25	1 60	2 60	3 60
Lock Nuts	"	0 04	0 04	0 06	0 07	0 08	0 10	0 12	0 25	0 40	0 50	0 70	0 95	1 35	1 90
Wrought Sockets.	"	0 05	0 06	0 07	0 10	0 13	0 17	0 21	0 28	0 40	0 60	0 80	1 00	1 65	2 40

## Galvanized Fittings.

Sizes, Inches		1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	5	6
Unions	Each,	\$0 20	\$0 24	\$0 27	\$0 37	\$0 50	\$0 70	\$0 90	\$1 20	\$2 25	\$2 90	\$4 50	\$5 60	....	....
Caps	"	0 05	0 05	0 07	0 10	0 14	0 20	0 30	0 40	0 65	1 00	1 30	1 60	....	....
Nipples, Short	"	0 07	0 08	0 09	0 11	0 13	0 17	0 23	0 32	0 65	0 85	1 15	1 40	....	....
" Long	"	0 09	0 11	0 13	0 16	0 19	0 24	0 31	0 40	0 85	1 10	1 40	1 90	....	....



# Universal Angle Unions.



(Patented.)

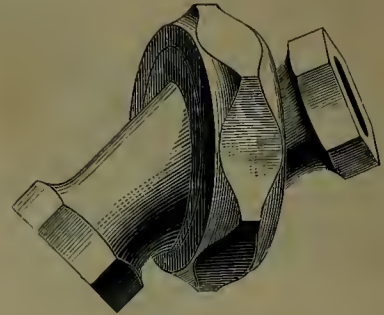
A NEW AND

IMPORTANT PIPE FITTING

FOR

STEAM, WATER OR

GAS.



Combining a Variable Angle, or Elbow, and a Union.

Saves Pipe, Saves Time, Decreases Friction and Radiation, gives a union joint at every angle, and can be set at any angle at which it is desired to run the pipe.

**BRASS.**

Diam. of Fitting, Inch,  $\frac{1}{2}$   $\frac{3}{4}$   
Each, \$1 50 1 75

Diam. of Fitting, Inch, 1  $1\frac{1}{4}$   $1\frac{1}{2}$  2  $2\frac{1}{2}$  3  $3\frac{1}{2}$  4 5 6  
Each, \$1 45 2 35 3 50 4 10 5 00 7 00 10 25 12 75 16 85 21 00

**IRON.****Union Flanges, with Bolts.**

Sizes, $\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Per Pair, \$0 65	0 70	0 85	1 15	1 50
Sizes, $2\frac{1}{2}$	3	$3\frac{1}{2}$	4	5
Per Pair, \$1 75	2 25	2 75	3 15	5 00
				6 50

**Plain Pipe Flanges.**

Per Pound \$0 12 $\frac{1}{2}$

**Rail Flanges,  $\frac{3}{4}$  and 1 Inch**

Per Pound, \$ . . . .

**Expansion Joints.****Iron Body, Brass Sleeve.**

Size, inches,	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	5	6
Each,	\$5 75	8 50	11 50	15 00	34 00	40 00
Traverse, inches,	$2\frac{1}{2}$	$2\frac{3}{4}$	3	$3\frac{1}{4}$	5	5

**Brass Body.**

Size, inches,	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Each,	\$2 25	3 00	4 00	5 00	7 50
Traverse, inches,	$2\frac{1}{4}$	$2\frac{1}{4}$	$2\frac{1}{4}$	$2\frac{1}{4}$	$2\frac{1}{2}$

**Pump Rod Couplings.**Size  $\frac{3}{8}$  Inch, 14 Threads, Malleable Iron

Each, \$0 20

Size  $\frac{1}{2}$  Inch, 12 Threads, Malleable Iron

Each, \$0 20

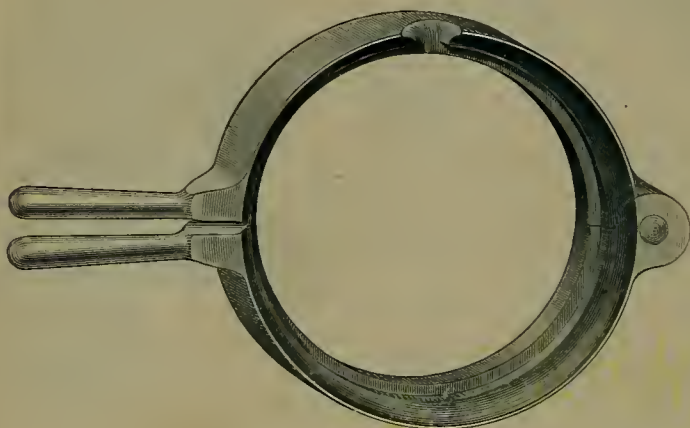
**Iron Foot Valves and Strainers.**

THREADED FOR IRON PIPE.



Sizes, inch,	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	5	6
Each, \$1 25	1 50	1 75	2 00	2 75	3 75	5 00	8 00	11 50	18 50	

## Combination Locking and Pouring Clamps.



For Pipe O. D.

Inch,	2	3	4	5	6
Each, \$ . . .	. . .	. . .	. . .	. . .	. . .
Inch,	7	8	9	10	11
Each, \$ . . .	. . .	. . .	. . .	. . .	. . .
Inch,	12	13	14	15	16
Each, \$ . . .	. . .	. . .	. . .	. . .	. . .

## Pipe Clamps or Saddles.

For Tapping Water and Gas Pipe Mains.

Outlets Tapped from 1/2 to 2 Inch.

For Pipe, Inch,	2	2½	3	3½	4
Each, \$	0 75	0 80	1 00	1 00	1 60

For Pipe, Inch,	4½	5	6	7	8
Each, \$	1 25	1 25	1 50	1 75	2 00

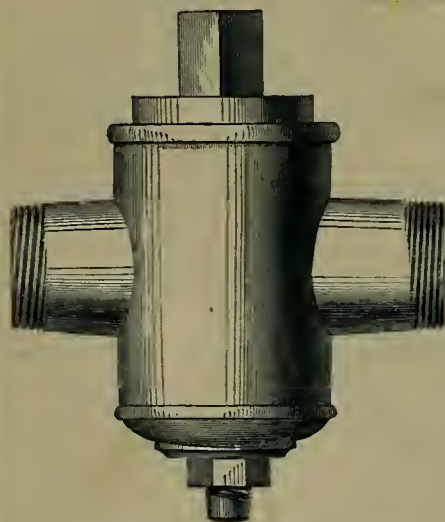
SHEET LEAD FOR PACKING THE ABOVE FURNISHED AT THE  
MARKET PRICE.



Round or Full Water Way

Service Cocks.

For Use in Connection with the Saddle Clamps.



OUTSIDE THREADS.

PIPE THREAD AT EACH END.

Size, Inch,	½	¾	1	1¼	1½	2
Per Dozen, \$	18 00	27 00	45 00	75 00	108 00	192 00

# Special Lap Welded Wrought Pipe.

WITH

THE "CONVERSE" PATENT LOCK JOINT.



The attention of all parties interested in using iron pipe for conveying Water, Gas or Compressed Air is respectfully requested to a careful examination of the "CONVERSE PATENT LOCK JOINT," for connecting iron pipe, an engraving of which is herewith given.

This Joint, in connection with our special Lap Welded Wrought Iron Pipe, has been thoroughly tested, and is being extensively used in the Eastern States, also on the Pacific Coast, and in every instance it gives perfect satisfaction, and receives the highest endorsements from the most competent engineers.

The following is the substance of an opinion given by Charles H. Haswell, Esq., the celebrated engineer, and standard authority on Hydraulics, etc.:

"The difference in friction between a line of ordinary bell end cast iron pipe and a line of seamless wrought iron pipe, fitted with the 'Converse Lock Joint,' would be fully 25 per cent. in favor of the latter; and the difference between the seamless wrought iron pipe fitted with the 'Converse Lock Joint,' and a similar line of wrought iron rivetted pipe, would be fully 35 per cent. in favor of the Lap Welded Pipe with the Converse Lock Joint."

This Pipe is coated inside and outside with material known as "Kalauein," which is similar to galvanizing but considered superior as protection against rust. In addition, the usual treatment of Asphalt coating will be made, unless purchasers desire otherwise.

## PRICES AND DESCRIPTION.

Exact O. D. Inch.	Nearest W. G.	Weight Per Foot Plain Ends	Weight of Joint. Lbs.	Weight of Lead One Side. Lbs.	Weight Per Foot Complete.	Price Per Foot.	Exact O. D. Inch.	Nearest W. G.	Weight Per Foot Plain Ends	Weight of Joint. Lbs.	Weight of Lead One Side. Lbs.	Weight Per Foot Complete.	Price Per Foot.
2	15	1.47	5	10/16	1.86	\$0 35	10	10	13.86	40	6	17.08	\$3 00
3	13½	2.74	9	1 9/16	3.48	0 65	11	9	16.98	..	.....	....	3 40
4	12½	4.20	13	2 2/16	5.26	0 95	12	8	20.62	56	8 12/16	25.12	3 75
5	11½	5.91	17	3 4/16	7.33	1 20	13	7½	23.30	..	.....	....	4 50
6	11½	7.11	20	3 9/16	8.76	1 45	14	7	25.27	71	10 6/16	31.00	5 00
7	10½	9.22	..	..	..	1 75	15	6½	29.95	..	.....	....	5 60
8	10½	10.56	32	5 12/16	13.20	2 00	16	5	39.61	99½	16	47.70	6 25
9	10	12.59	38	6 1/2	15.00	2 50							

## Drive Well Points.



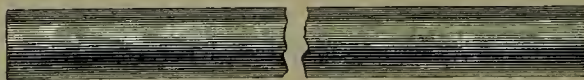
Size, Inch. 1 1/4  
Each, \$2 40

1 1/2  
3 60

2  
7 20



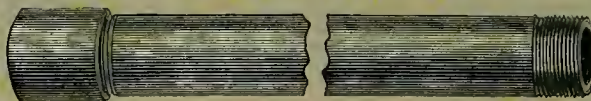
## Lap-Welded American Iron Boiler Tubes.



OF STANDARD GAUGE, NOT OVER 20 FEET LONG.

Outsidedia., in.	1	1¼	1½	1¾	2	2¼	2½	2¾	3	3¼	3½	3¾	4	4½	5	6	7	8	9	10	11	12	13	14	15
Price per foot,	\$0 23	0 23	0 23	0 22	0 22	0 25	0 28	0 31	0 34	0 38	0 43	0 45	0 52	0 60	0 72	1 00	1 45	1 85	2 25	2 75	3 25	3 55	4 20	4 75	5 75
Wire Gauge,	15	15	14	13	13	13	12	12	12	11	11	11	10	10	9	8	8	8	7	6	5	4½	4	3½	3
Weight per ft.,	.70	.90	1.24	1.66	1.91	2.16	2.75	3.04	3.33	3.96	4.28	4.60	5.47	6.17	7.58	10.16	11.90	13.65	16.76	21.00	25.00	28.50	32.06	36.00	40.60

## WROUGHT IRON WELDED PIPE.



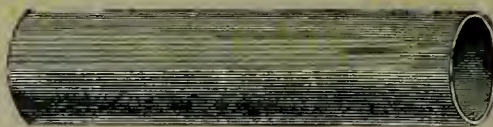
LIST OF PRICES AS REVISED MARCH 23, 1887.

Inter. Dia.,	½	¾	¾	½	¾	1	1¼	1½	2	2½	3	3½	4	5	6	7	8	9	10
Pln. per ft.,	\$.04	.04	.04	.05	.07	.09½	.12½	.22	.28	.44	.58	.70	.85	1.20	1.65	2.00	2.75	3.70	4.75
Gal. per ft.,	. . .	.05	.05½	.07	.09	.12½	.17	.25	.32	.49	.64	.86	1.00	1.50	2.00	. . .	. . .	. . .	. . .
Weight " "	. . .	.42	.56	.84	1.12	1.67	2.24	2.68	3.61	5.74	7.54	9.00	10.66	14.50	18.76	23.27	28.18	33.70	40.06

## PUMP COLUMN STEAM AND AIR PIPE.

From 4 to 16 inches in stock. Prices quoted on application.

## BRASS AND COPPER TUBING.



OUTSIDE MEASURE.

SIZES.	BRASS, BRAZED.	BRASS, SEAMLESS.	COPPER, SEAMLESS.
1/8 Inches.	\$1 75 Per Pound.	\$2 00 Per Pound.	\$ . . . Per Pound.
3/16 "	1 25 "	1 50 "	. . . "
1/4 "	65 "	85 "	. . . "
5/16 "	50 "	75 "	. . . "
3/8 & 7/16 "	45 "	65 "	. . . "
1/2 to 1 "	40 "	60 "	. . . "
1 1/8 " 2 "	40 "	50 "	. . . "
2 1/2 " 4 "	. . . "	55 "	. . . "

ABOVE 4 IN. PRICES QUOTED ON APPLICATION.

Table—Altitude of Jets, Capacity of Cisterns, Etc.

ALTITUDE OF JETS IN FEET.									DISCHARGE OF JETS IN GALLONS PER MINUTE.								
Head on Jet in Lbs.	Head on Jet in Feet.	DIAMETER OF JET IN INCHES.							Head on Jet in Lbs.	Head on Jet in Feet.	DIAMETER OF JET IN INCHES.						
		3/8	1/2	5/8	3/4	1	1 1/4	1 1/2			3/8	1/2	5/8	3/4	1	1 1/4	1 1/2
20	46.16	37.28	39.50	40.83	41.72	42.83	43.49	43.94	20	46.16	17.61	31.30	48.91	70.44	125.22	195.66	281.76
25	57.70	43.82	47.29	49.37	50.76	52.49	53.80	54.23	25	57.70	19.68	35.00	54.69	78.75	140.00	218.76	315.02
30	69.24	49.26	54.25	57.25	59.25	61.74	63.24	64.24	30	69.24	21.56	38.34	59.91	86.27	153.37	239.64	345.08
40	92.32	56.80	65.68	71.01	74.56	79.00	81.66	83.44	40	92.32	24.90	44.27	69.17	99.61	177.09	276.71	398.46
50	115.40	59.91	73.78	82.10	87.65	94.59	98.75	101.52	50	115.40	27.84	49.49	77.32	111.35	197.95	309.31	445.40
60	138.48	...	78.55	90.53	98.52	108.51	114.50	118.50	60	138.48	...	54.19	84.67	121.92	216.76	338.68	487.71
70	161.56	...	79.99	96.30	107.18	120.77	128.93	134.37	70	161.56	...	58.56	91.51	131.77	234.27	366.04	527.10
80	184.64	...	...	99.41	113.61	131.37	142.02	149.12	80	184.64	...	...	97.77	140.79	250.30	391.10	563.19
90	207.72	...	...	99.85	117.82	140.30	153.78	162.78	90	207.72	...	...	103.75	149.30	265.60	415.00	597.61
100	230.80	...	...	...	119.82	147.56	164.21	175.31	100	230.80	...	...	...	157.49	279.98	437.47	629.96
110	253.88	...	...	...	...	153.16	173.31	186.73	110	253.88	...	...	...	...	293.62	458.78	660.64
120	276.96	...	...	...	...	157.10	181.07	197.05	120	276.96	...	...	...	...	306.90	479.23	690.99
130	300.04	...	...	...	...	159.37	187.51	206.26	130	300.04	...	...	...	...	319.24	498.81	718.29
140	323.12	...	...	...	...	159.98	192.61	214.36	140	323.12	...	...	...	...	331.22	517.53	745.25
150	346.20	...	...	...	...	...	196.38	221.35	150	346.20	...	...	...	...	...	535.96	771.79
160	369.28	...	...	...	...	...	198.82	227.23	160	369.28	...	...	...	...	...	553.42	796.92
170	392.36	...	...	...	...	...	199.94	231.99	170	392.36	...	...	...	...	...	570.47	822.57
180	415.44	...	...	...	...	...	...	235.65	180	415.44	...	...	...	...	...	...	845.28

NUMBER OF BARRELS (31 1/2 Gals. CONTAINED IN CISTERNS AND TANKS.

Diameter in Feet.	DEPTH IN FEET.																		
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
5	23.3	28.0	32.7	37.3	42.0	46.7	51.3	56.9	60.7	65.3	70.0	74.7	79.3	84.0	88.7	93.3			
6	33.6	40.3	47.0	53.7	60.4	67.1	73.9	80.6	87.3	94.0	100.7	107.4	114.1	120.9	127.6	134.4			
7	45.7	54.8	64.0	73.1	82.2	91.4	100.5	109.7	118.8	127.9	137.1	146.2	155.4	164.5	173.6	182.8			
8	59.7	71.7	83.6	95.5	107.4	119.4	131.3	143.2	155.2	167.1	179.0	191.0	202.9	214.8	226.8	238.7			
9	75.5	90.6	105.7	120.9	136.1	151.1	166.2	181.3	196.4	211.5	226.6	241.7	256.8	272.0	287.0	302.1			
10	93.2	111.9	130.6	149.2	167.9	186.5	205.1	223.8	242.4	261.1	280.8	299.4	317.0	335.7	354.3	373.0			
11	112.8	135.4	158.0	180.5	203.1	225.7	248.2	270.8	293.4	315.9	338.5	361.1	383.6	406.2	428.8	451.3			
12	134.3	161.1	188.0	214.8	241.7	268.6	295.4	322.3	349.1	376.0	402.8	429.7	456.6	483.4	510.3	537.1			
13	157.6	189.1	220.6	252.1	283.7	315.2	346.7	378.9	409.7	441.3	472.8	504.3	535.8	567.3	593.9	630.4			
14	182.8	219.3	255.9	292.4	329.0	365.5	402.1	438.6	475.2	511.8	548.3	584.9	621.4	658.0	694.5	731.1			
15	209.8	251.8	293.7	335.7	377.0	419.6	461.6	503.5	545.5	587.5	629.4	671.4	713.4	755.3	797.5	839.3			
16	238.7	286.5	334.2	382.0	429.7	477.4	525.2	572.9	620.7	668.2	716.2	773.9	811.6	859.4	907.1	954.9			
17	269.5	323.4	377.3	431.2	485.1	539.0	592.9	646.8	700.7	754.6	808.5	862.4	916.3	970.2	1024.1	1078.0			
18	302.1	362.6	423.3	483.4	543.8	604.3	667.7	725.1	785.5	846.0	906.4	966.8	1027.2	1087.7	1148.1	1208.5			
19	336.6	404.1	471.3	538.6	605.9	673.3	740.6	807.9	875.2	942.6	1009.9	1077.2	1144.6	1211.9	1279.2	1346.5			
20	373.1	447.6	522.2	596.8	671.4	746.0	820.6	895.2	969.8	1044.4	1119.0	1193.6	1268.2	1342.8	1417.4	1492.0			
21	411.2	493.5	575.7	658.0	740.2	822.5	904.7	987.0	1069.2	1151.5	1233.7	1315.9	1398.2	1480.4	1562.7	1644.9			
22	451.3	541.6	631.9	722.1	812.4	902.7	992.9	1083.2	1173.5	1263.7	1354.0	1444.3	1534.5	1624.8	1715.1	1805.3			
23	493.3	592.0	690.6	789.3	887.9	986.6	1085.2	1183.9	1282.6	1381.2	1479.9	1578.5	1677.2	1775.9	1874.5	1973.2			
24	537.1	644.5	752.0	859.4	966.8	1074.2	1181.7	1289.1	1396.5	1503.9	1611.4	1718.8	1826.2	1933.6	2041.1	2148.5			
25	582.8	699.4	815.9	932.5	1049.1	1165.6	1282.2	1398.7	1515.3	1631.9	1748.4	1865.0	1981.6	2098.1	2214.7	2321.2			
26	630.4	756.5	882.5	1008.6	1134.7	1260.8	1386.8	1512.9	1639.0	1765.1	1891.1	2017.2	2143.3	2269.4	2395.4	2521.5			
27	679.8	815.8	951.7	1087.7	1223.6	1359.6	1495.6	1631.5	1767.5	1903.4	2039.4	2175.4	2311.3	2447.3	2583.2	2719.2			
28	731.1	877.3	1023.5	1169.7	1316.9	1462.2	1608.7	1754.6	1900.8	2047.1	2193.3	2339.5	2485.7	2631.9	2778.1	2924.4			
29	784.2	941.1	1097.9	1254.8	1411.6	1568.5	1725.3	1882.2	2039.0	2195.9	2352.7	2509.9	2666.4	2823.3	2980.1	3137.0			
30	839.3	1007.1	1175.0	1342.8	1510.7	1678.5	1846.4	2014.2	2182.0	2349.9	2517.8	2685.6	2853.5	3021.3	3189.2	3357.0			

For tanks that are tapering, measure the diameter 4/10ths from the Large end.

## LIQUID MEASURE.

U. S. Gall Weights .26005 pounds avoirdupois of Water.

" Pint " 1.0402 " " " "

U. S. Quart weighs 2.0804 pounds avoirdupois of Water.

" Gallon " 8.3216 " " " "

## Weight of Lead Pipe, Sheet Lead, Etc.

## Lead Pipe.

CALIBRE.	WT. PER FOOT.	CALIBRE.	WT. PER FOOT.	CALIBRE.	WT. PER FOOT.
AA 3/8 in. ex. strong	1 lb. 5 oz.	C 3/4 in. light	2 lb. 1 oz.	AA 2 in. ex. strong	9 lb. 0 oz.
A " strong	1 " 2 "	D " ex. light	1 " 10 "	A " strong	7 " 0 "
B " medium	1 " 0 "	E " fountain	1 " 4 "	B " medium	6 " 0 "
C " light	13 "	AAA 1 in. ex. pressure	6 lb. 0 oz.	C " light	5 " 4 "
D " fountain	10 "	AA " ex. strong	4 " 12 "	D " ex. light	4 " 0 "
AAA 1/2 in. ex. pressure	3 lb. 0 oz.	A " strong	4 " 0 "	2 1/2 in. 3/8 in. thick	16 lb. 11 oz.
AA " ex. strong	2 " 0 "	B " medium	3 " 4 "	2 1/2 " 5/16 "	13 " 11 "
A " strong	1 " 11 "	C " light	2 " 8 "	2 1/2 " 1/4 "	11 " 0 "
B " medium	1 " 4 "	D " ex. light	2 " 0 "	2 1/2 " 3/16 "	7 " 13 "
C " light	1 " 0 "	E " fountain	1 " 8 "	3 in. 3/8 in. thick	19 lb. 10 oz.
D " fountain	12 "	AA 1 1/4 in. ex. strong	5 lb. 12 oz.	3 " 5/16 "	16 " 0 "
AAA 5/8 in. ex. pressure	3 lb. 8 oz.	A " strong	4 " 12 "	3 " 1/4 "	12 " 10 "
AA " ex. strong	2 " 12 "	B " medium	3 " 12 "	3 " 3/16 "	9 " 5 "
A " strong	2 " 8 "	C " light	3 " 0 "	3 1/2 in. 7/16 in. thick	26 lb. 10 oz.
B " medium	2 " 0 "	D " ex. light	2 " 8 "	3 1/2 " 3/8 "	21 " 10 "
C " light	1 " 11 "	E " fountain	2 " 0 "	3 1/2 " 5/16 "	18 " 5 "
D " ex. light	1 " 4 "	AA 1 1/2 in. ex. strong	7 lb. 4 oz.	3 1/2 " 1/4 "	15 " 0 "
E " fountain	1 " 0 "	A " strong	6 " 4 "	4 in. 7/16 in. thick	30 lb. 0 oz.
AAA 3/4 in. ex. pressure	4 lb. 8 oz.	B " medium	5 " 0 "	4 " 3/8 "	25 " 5 "
AA 3/4 in. ex. strong	3 " 8 "	C " light	4 " 4 "	4 " 5/16 "	21 " 0 "
A " strong	3 " 0 "	D " ex. light	3 " 8 "	4 " 1/4 "	16 " 5 "
B " medium	2 " 4 "	E " fountain	3 " 0 "		

## Number of Shot Per Pound.

DROP SHOT.		BUCK SHOT.	
SIZES.	PELLETS PER OZ.	SIZES.	NO. TO THE POUND.
T	41	1	164
BBB	46	2	236
BB	55	3	270
B	68		
1	79		
2	89		
3	118		
4	134		
5	170		
6	215		
7	303		
8	420		
9	592		
10	874		
11	1404		
12	2030		

## Lead Waste Pipe.

CALIBRE.	WT. PER FOOT.	CALIBRE.	WT. PER FOOT.
3 inches	3 lb. 8 oz.	4 1/2 inches	6 lb. 0 oz.
6 "	4 " 8 "	4 1/2 "	6 " 12 "
4 "	5 " 0 "	5 "	8 " 4 "
4 "	6 " 0 "	5 "	10 " 0 "
		6 "	9 " 12 "

## Sheet Lead.

WT. PER SQ. FOOT.	THICKNESS.	WT. PER SQ. FOOT.	THICKNESS.
2 1/2 Pounds	5/128 inch	7 Pounds.	7/64 inch
3 "	3/64 "	8 "	1/8 "
3 1/2 "	7/128 "	9 "	9/64 "
4 "	1/16 "	10 "	5/32 "
4 1/2 "	9/128 "	12 "	3/16 "
5 "	5/64 "	16 "	1/4 "
6 "	3/32 "	24 "	3/8 "



## The "Nevada" Oval Top Retort.



The advantage of this Retort over the *old flat pattern* is, that it can be filled full of Amalgam, thereby holding more than the old style, besides avoiding all danger of an explosion, owing to the crown space in the cover which allows for the expansion. They are made extra heavy, *well ground* in the joints, and are furnished with a strong Norway clamp, having a wrought iron key which can be driven in or out of place by a single stroke of a hammer.

WE KEEP 7 SIZES, AS FOLLOWS:

Number or Pints,	1	2	3	4	5	6	10
Holds Pounds Quicksilver,	12½	25	38	50	63	75	125
Weight Pounds,	10	15	18	25	31	44	65
Each, \$	4 50	5 50	7 00	8 00	9 00	10 50	12 00

## Mortars and Pestles.



GROUND INSIDE.

Size, Quarts,	½	1	2	4	6	8	12	16
Height, Inches,	3½	5	6	7½	8½	9	11	12
Weight, Pounds,	6½	9	16	22	37	43	72	86
Each, \$	1 00	1 25	2 00	3 00	4 75	5 50	9 00	10 75

## Bullion Ladles.



FORGED FROM ONE PIECE OF CHARCOAL IRON.

8 Inches in Diameter by 4 Inches Deep

Per Dozen, \$36 00

## Self-Skimming Ladles.



Per Dozen

\$6 00

## Iron Ladles.



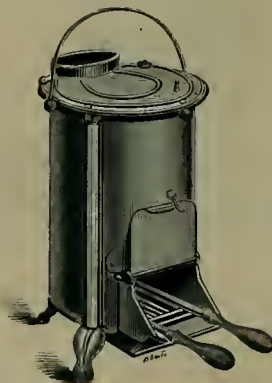
## Wrought Iron Ladles.

Inch, 2½	3	3½	4	4½	5	6
Per Dozen, \$1 75	2 00	2 25	2 50	3 00	3 50	4 50

## Heavy Socket Ladles.

Dia., Inch, 6	7	8	9	10
Per Dozen, \$12 00	18 00	20 00	24 00	30 00

## Tinnerns' Fire Pots.

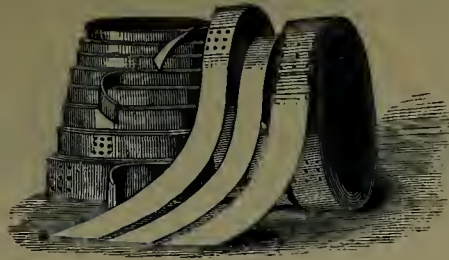


Each

\$4 00

# Oak Tanned Leather Belting.

337



Width, Inch,	1	1½	2	2½	3	3½	4	4½	5	6	7	8	9	10	12
Per Foot, \$	0 10	0 17	0 23	0 30	0 36	0 43	0 50	0 56	0 63	0 76	0 90	1 02	1 15	1 29	1 53

Double Leather Belting Twice Price of Single Belting.

## Round Leather Belting.

Diam., Inch,	1/4	5/16	3/8	1/2	5/8	3/4	7/8	1
Per Foot, \$	0 14	0 18	0 22	0 30	0 36	0 46	0 60	0 72

## Metallic Tipped Lacing.

Length, Feet,	3	4	5	6
Per Dozen, \$	0 50	0 75	1 25	1 75

## Rawhide Lacing.

Insides, per Square Foot. \$0 30

Cut in Strips, in Bundles of 100 feet.

Width, Inches,	1/4	5/16	3/8	7/16	1/2	5/8	3/4
Per Bundle, \$	1 00	1 25	1 50	1 75	2 00	2 75	3 25

## Anchor Brand Kip Lace Leather.

Per Dozen, A \$40 00 B \$36 00 C \$32 00 D \$28 00

# Rubber Belting.

MADE ON BEST COTTON DUCK.

MANUFACTURERS' LIST.

## Two-Ply.

Width.	Per Foot.	Width.	Per Foot.
1 Inch	\$0 07	4 Inch	\$0 30
1¼ "	0 09	4½ "	0 33
1½ "	0 11	5 "	0 36
2 "	0 15	6 "	0 43
2½ "	0 18	7 "	0 51
3 "	0 22	8 "	0 59
3½ "	0 26		

## Three-Ply.

Width.	Per Foot.	Width.	Per Foot.
2 Inch	\$0 17	5 Inch	\$0 43
2½ "	0 22	6 "	0 52
3 "	0 26	7 "	0 60
3½ "	0 30	8 "	0 70
4 "	0 34	9 "	0 80
4½ "	0 39	10 "	0 90

## Four-Ply.

Width.	Per Foot.	Width.	Per Foot.
2 Inch	\$0 21	16 Inch	\$1 78
2½ "	0 26	18 "	2 02
3 "	0 31	20 "	2 26
3½ "	0 37	22 "	2 52
4 "	0 42	24 "	2 80
4½ "	0 47	26 "	3 08
5 "	0 52	28 "	3 36
6 "	0 62	30 "	3 64
7 "	0 73	32 "	3 92
8 "	0 84	34 "	4 20
9 "	0 95	36 "	4 48
10 "	1 07	38 "	4 76
11 "	1 18	40 "	5 04
12 "	1 30	42 "	5 32
13 "	1 42	44 "	5 60
14 "	1 54	46 "	5 88
15 "	1 66	48 "	6 16

Five-Ply Belting add 25 per cent. to Four-Ply List.

# Rubber



# Hose.

MANUFACTURERS' LIST.

Size, Diam., Inches,	1/2	3/4	1	1¼	1½	2	2¼	2½	3	4
Two-Ply, per Foot, \$	0 20	0 25	0 33	0 42	0 50	0 66	0 75	0 83	0 99	1 32
Three-Ply, " "	\$0 25	0 30	0 40	0 50	0 62	0 80	0 90	1 00	1 20	1 60
Four-Ply, " "	\$0 30	0 37	0 50	0 62	0 75	1 00	1 12	1 25	1 50	2 00

We keep in Stock the following Brands of Rubber Hose:

COMPETITION.  
STANDARD.

EXTRA A 1.  
COTTON, RUBBER LINED.

EXTRA STEAM AND OIL.  
WIRE LINED, A 1 SUCTION.

PRICES GIVEN ON THE ABOVE GRADES OF HOSE ON APPLICATION.



## Hose Pipes.

SHORT, PLAIN.



SHORT, COCK LARGE END.



Brass, with Screw Tips.

<b>Short, Plain,</b> $\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2 Inch.
Per Dozen, \$ 8 00	10 00	20 00	25 00	38 00
<b>Short, C. L. E.,</b> $\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2 Inch.
Per Dozen, \$13 00	15 00	45 00	70 00	80 00

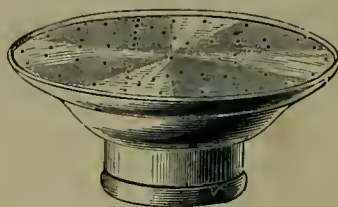
## Hose Couplings.



Brass.

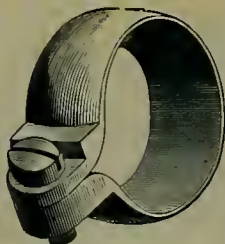
Inch, $\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Per Dozen, \$ 2 40	2 40	4 40	10 00	14 00	24 00

## Hose Pipe Sprinklers.



Diameter of Rose, 2	$2\frac{1}{2}$	3	$3\frac{1}{2}$ Inch.
Per Dozen, \$4 50	6 00	9 00	12 00

## Screw Bands for Hose.



A Screw Driver is the only tool required for the putting of them on.

Sizes, Inch, $\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Per Dozen, \$1 50	1 50	2 00	2 50	5 00	6 50

## Rubber Washers for Hose Couplings.

Sizes, Inch, $\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$
Per Gross, \$0 60	0 80	1 60	2 00	2 50	5 50

FOR A FULL LINE OF BRASS GOODS SEE OUR SPECIAL BRASS GOODS CATALOGUE.

# "Clinton" Brand Square Braided Flax Packing.



TO DEALERS AND CONSUMERS OF PACKING.

The marked success of the "CLINTON" BRAND SQUARE FLAX PACKING has brought into the market imitators, who, by base and untruthful representations, seek to push the sale of their goods. Be on your guard, and see that every box is labeled "CLINTON" BRAND.

All Sizes in Stock,  $\frac{1}{4}$  to 2 Inch . . . . . Per Pound, \$0 75

## Asbestos Material.

PURE FIBRE.



### Piston Packing.

For Piston Rods, Valve Stems, Throttle Valves, Stuffing Boxes of high and low pressure and Rotary Engines, and wherever superheated steam or acids are used.

Asbestos, Round Packing, all Sizes . . . . .	Per Pound, \$0 40
" Mill Board, Sheets 44 x 42 Inch . . . . .	" " 0 30
" Wicking, in Balls . . . . .	" " 0 80

The approximate weights of Sheets are as follows:

Thickness per Sheet,	$\frac{1}{32}$	$\frac{1}{16}$	$\frac{3}{32}$	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$ Inch.
Weight " "	1 $\frac{3}{4}$	3 $\frac{1}{2}$	5 $\frac{1}{4}$	7	10 $\frac{1}{2}$	14	21	28 Pounds.

### Rope Packing.

Jute . . . . .	Coils of 25 and 50 lbs.	Per Pound.
American Hemp . . . . .	" " 25 " 50 "	" " " "
Italian " S. D. & Co., . . . . .	" " 25 " 50 "	" " " "
" " Standard . . . . .	" " 25 " 50 "	" " " "
" Flax . . . . .	" " 25 " 50 "	" " " "
Cotton Packing . . . . .		
" Lamp Wick . . . . .		

### Piston Packing.

"Centennial" Brand, all Sizes . . . Per Pound, \$ . . .

### Cotton Waste.

100 lb Bales.

Cop., Machine Picked, White . . . . .	Per Pound, \$0 12
Washed Waste, Second Quality . . . . .	" 0 10

### Soapstone Packing.

Round, $\frac{1}{4}$ and $\frac{3}{8}$ Inch, Inclusive . . . . .	Per Pound, \$ . . .
" $\frac{1}{2}$ " larger . . . . .	" " " "

### Hair Felting.

$\frac{1}{2}$ In., about 300 Square Ft. to the Roll, per Square Foot, \$0 10
$\frac{3}{4}$ " " 300 " " " " " " " " 0 12
1 " " 300 " " " " " " " " 0 14

### Oakum.

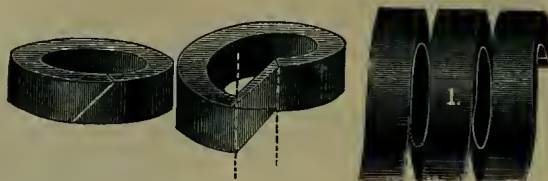
50 lb Bales.

Standard . . . . .	Per Bale, \$4 50
Best Navy . . . . .	" " 5 00

## "Jenkins" Standard Packing.



## "Jenkins" Patent Stem Packing.



### "Jenkins" Standard Packing.

In presenting the JENKINS' STANDARD PACKING to steam users we are not offering an entirely new Packing, but a packing that has been severely tested in all positions and under all actions of steam, super-heated steam, oils, acids, etc., and *has never failed* to make a perfect joint under all conditions when properly applied. JENKINS' STANDARD PACKING will stand more heat and pressure than any Packing made, and is particularly adapted to high pressure expansion joints.

JENKINS' STANDARD PACKING can be made any thickness desired. If you have only thin packing on hand, by placing two or more thicknesses together in a joint and allowing the heat to come in contact with Packing and following up joint it will amalgamate and become solid. We would ask as a trial to have you use the JENKINS' STANDARD PACKING in the worst joint you have, and if, after following directions, it is not what we claim, we will refund the money.

We keep in stock the following thicknesses:

Inches.	$\frac{1}{32}$	$\frac{1}{16}$	$\frac{3}{32}$	$\frac{1}{8}$	} Per Pound, \$0 80
Average weight sq. yard, lbs.	3	6	10 $\frac{1}{2}$	12	

### "Jenkins" Patent Stem Packing.

All users of Steam and Valves know how essential it is to have their Stuffing Boxes tight, so as to prevent the leaking of steam and the dripping of water or fluid upon the floor or carpet.

After several years' experimenting, we have at last perfected a packing for Valve Stems which is meeting with great success among users of steam, who speak in the highest terms of its successful working.

Coils  $\frac{1}{8}$  in. thick are suitable for  $\frac{1}{4}$ ,  $\frac{3}{8}$ , and  $\frac{1}{2}$  in. Valves. Coils  $\frac{3}{16}$  in. thick are suitable for  $\frac{3}{4}$  and 1 in. Valves. Coils  $\frac{1}{4}$  in. thick are suitable for 1  $\frac{1}{4}$ , 1  $\frac{1}{2}$ , and 2 in. Valves.

Price . . . . . Per Pound, \$1 25

SEND FOR COMPLETE CATALOGUE OF "JENKINS" PACKINGS.

## Round and Square Rubber Packing.



SQUARE.



ROUND.

This packing is made in lengths of 12 feet each, and of the best quality cotton, duck, and rubber.

Round and Square Standard . . . Per Pound, \$ . . . | Square, with Rubber Back . . . Per Pound, \$ . . .

## Sheet Rubber Packing.



Cloth Insertion, Rubber Outside. Cloth Insertion, Cloth on one or both sides.

$\frac{1}{32}$ inch Thick						Per Pound, \$ . . . .
$\frac{1}{16}$ "						" \$ . . . .
$\frac{3}{32}$ " and Thicker						" \$ . . . .

Average Weight Per Square Yard.

Inches, $\frac{1}{32}$	$\frac{1}{16}$	$\frac{3}{32}$	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{4}$
Pounds, 2 $\frac{1}{2}$	5 $\frac{1}{2}$	7 $\frac{1}{2}$	10	15	20



## Bright Halter Chain.

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Nos.	3/0	2/0	0	1	2	3	4	5	6
4 1/2 Feet Per Dozen,	\$5 20	4 50	4 00	3 50	3 00	2 75	2 65	2 55	2 45
6 " "	6 75	5 75	5 00	4 50	4 00	3 60	3 35	3 20	3 10

## Bright Coil Chain.



Nos.	3/0	2/0	0	1	2	3	4	5	6
Per 100 Feet,	\$7 75	6 75	6 00	5 25	4 65	4 25	4 00	3 90	3 80

For the Price of Galvanized Chain, Double the List.

## Close Link Coil Chain.



Inches,	3/16	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1	1 1/8	1 1/4
Per Pound,	13	10 1/2	9 1/2	8 1/2	8	7 1/2	7 1/4	7	6 1/2	6 1/4	6	5 3/4	5 1/2 cts.

## Trace Chains.



Straight or Twisted. With Hook or Ring.

No. 2. 6½ Feet Long

Per Dozen Pairs, \$9 00

## Jack Chain.



No. 20.

No. 18.

No. 16.

No. 15.

No. 14.

No. 13.

No. 12.

No. 10.

No. 8.

No. 00, Safety. No. 1, Safety.

## Iron.

Nos.	5	6	7	8	9	10	11	12	13	14
Per Dozen Yards,	\$3 20	2 60	2 20	1 90	1 65	1 40	1 20	0 90	0 75	0 65
Nos.	15	16	17	18	19	20	21	22	23	24
Per Dozen Yards,	\$0 55	0 50	0 45	0 42	0 40	0 38	0 36	0 34	0 34	0 34

## Brass.

Nos.	5	6	7	8	9	10	11	12	13	14
Per Dozen Yards,	\$9 00	7 50	6 25	5 25	4 50	3 75	3 20	2 50	2 05	1 70
Nos.	15	16	17	18	19	20	21	22	23	24
Per Dozen Yards,	\$1 40	1 25	1 10	1 00	0 85	0 70	0 60	0 55	0 55	0 55

## Brass Safety.

Nos.	3-0	2-0	0	1	2	3
Per Dozen Yards,	\$1 75	2 25	2 50	3 12	4 68	6 36

## Bright Machine Chain.



Short Close Link.

Nos.	000	00	0	1	2	3
Per 100 Feet,	\$18 00	16 00	15 00	14 00	12 00	10 00



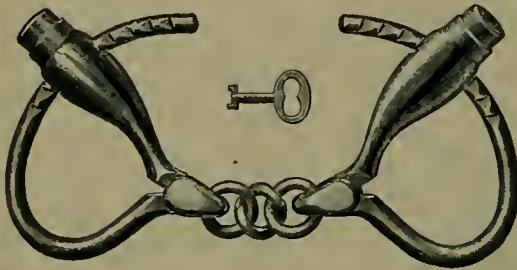


## "DALEY'S" OR "TOWER'S"

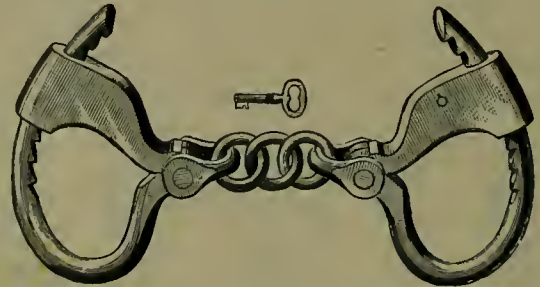
IMPROVED PATENT

## Adjustable Handcuffs and Leg-Irons.

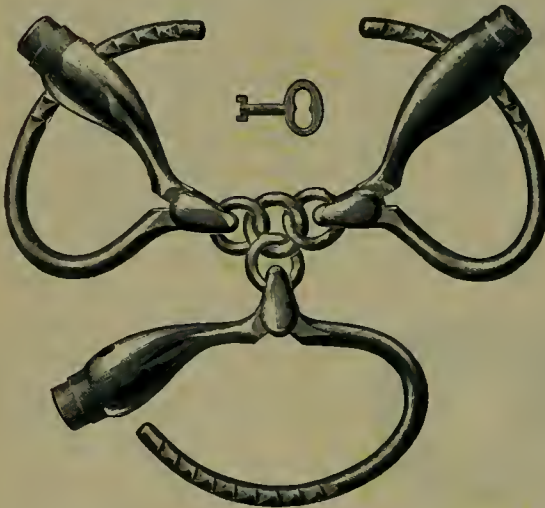
"Daley's" Handcuffs and Leg-Irons. "Tower's" Handcuffs and Leg-Irons.



For Three Hands.



For Three Hands.



The great improvements which have been made in these goods, both in style and workmanship, warrant us in offering them to the trade, and to the *Army and Navy, Sheriffs, Police, Wardens, Jailors, Detectives*, and all Criminal Officers, as in all respects what is needed for the better securing of prisoners. They combine, with the greatest *Strength and Security*, the important advantages of THE ADJUSTABLE SHACKLE, by which limbs of all sizes are closely fitted, preventing wholly the liability of slipping off, so frequent with the old styles, as well as the chafing and injuries caused by using those too small.

The Bolts and Keys are steel, and the lock so arranged as to effectually guard against picking.

## Price List of Daley's or Tower's Goods.

Handcuffs, Polished . . . . .	Per pair, \$4 00	Handcuffs, Extra Finish and Nickel-Plated . . . . .	Per pair, \$4 75
" for Three Hands, Polished . . . . .	" 6 00	" for Three Hands, " " . . . . .	" 7 00
Leg-Irons, Polished . . . . .	" 6 00	Leg-Irons, Extra Finish and " " . . . . .	" 7 00

Wrist Shackles.



Per Dozen . . . . . \$18 00

# "Weston's" Patent Differential Pulley Blocks.

DIRECT.

PRICE LIST

OF

## Direct Blocks.

Capacity . . . .	¼ ton.	½	1	1½	2	3
Price, Complete . .	\$13 00	15 00	20 00	25 00	30 00	40 00
Chain, per Foot . .	\$0 36	0 38	0 40	0 42	0 44	0 48
Top Sheaves . . . .	\$1 50	2 00	2 50	3 50	5 00	6 50
Bottom Sheaves . .	\$0 75	1 00	1 25	1 50	2 00	3 00
Regular Length Chain .	22 ft.	26	30	33	36	38
Hoists (See Note) . .	6 ft.	7	8	8½	9	9½
Weight, Complete . .	22 lbs.	30	51	81	122	173

LENGTH OF CHAINS.—Allow about 4 feet of Chain for each foot of Hoist.

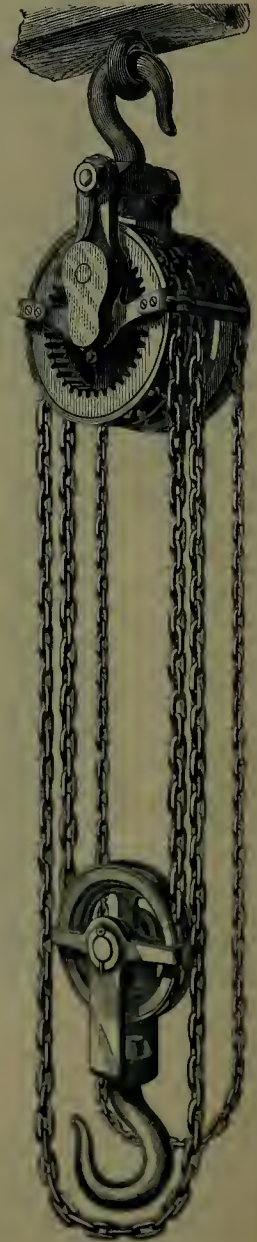
NOTE.—Figures on the seventh line denote approximate height which blocks with regular lengths of chain, will hoist from level on which operator stands.

PRICE LIST

OF

## Geared Blocks.

CAPACITY.	PRICE, Complete with Chains Regular Lengths.	CHAINS.			HOIST.  See Note Above.	WEIGHT.  Complete.
		REGULAR LENGTH.		PRICE of Extra Main Chain, Per Foot.		
		Main Chain.	Hand Chain.			
1 ton	\$35 00	22 ft.	16 ft.	\$0 40	8 ft.	62 lbs.
2 "	45 00	24 "	18 "	0 44	9 "	109 "
3 "	60 00	26 "	20 "	0 48	10 "	159 "
4 "	80 00	28 "	22 "	0 54	11 "	257 "
5 "	110 00	30 "	24 "	0 60	12 "	324 "
6 "	150 00	32 "	26 "	0 70	13 "	493 "
8 "	210 00	36 "	28 "	0 85	14 "	735 "
10 "	275 00	40 "	30 "	1 00	16 "	1054 "



LENGTH OF CHAINS.—For each foot of Hoist allow 212 feet of Main Chain, and 2 feet of Hand Chain.

Extra Hand Chain .

Per Foot, \$0 38



## “White’s” Patent Gyrating Chain Hoists.

THE MANUFACTURERS CLAIM FOR IT THE FOLLOWING POINTS:



1st.—It weighs less than any other Hoist of equal power, hence is more easily carried. One workman can comfortably carry a 3,000-lb Hoist. Bridge and roof constructors appreciate this.

2d.—Its parts being entirely covered, are protected from dust, rain, etc., hence durability, and absence of gummed oil and dirt, the parasites of all other hoists.

3d.—It will lift nearer its point of suspension than any other Hoist, therefore no blocking up of load to take a new position and fresh lift.

4th.—Its construction enables lifting to be done at either end of the chain, an impossibility with worm Hoists, their center of suspension and center of weight being so far apart, hence just one-half of the chain movement and a large percentage of time saved, as one end is always down and ready for its load when the other end is up with its load.

5th.—Its peculiar construction distributes the wear over all parts of the machine, while in worm Hoists all the wear is thrown on the worm.

The “White” Hoist not only combines all the good features claimed by the other Hoists, but the merits set forth specifically for it above in addition, place it beyond their competition.

We warrant every Hoist to have been inspected by us, both apart and when put together, and tested by actual lifting to its marked capacity. We stand ready to take back any Hoist that should not prove all we have stated it to be, and to refund the amount paid for it.

All parts of our Hoists are fitted to templates, and in case any piece should want to be renewed we are prepared to furnish it ready to fit in the place of the old piece, thus saving the expense of sending it to a machine shop for repairs. The Hoist is easy to take apart and put together, so that every part can be readily examined whenever deemed necessary.

To furnish a new piece we have to know only the capacity or class of the Hoist, its manufacturing number, which is conspicuously stamped on every Hoist before it leaves our works, and the number of the piece as per description below.

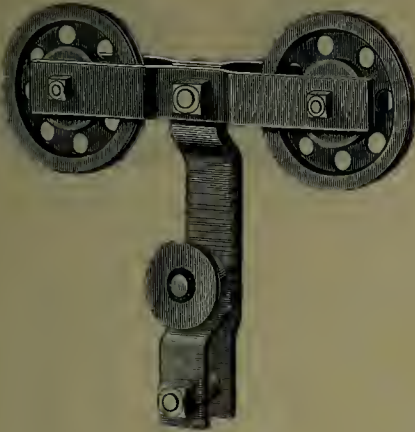
### PRICE LIST OF HOISTS.

CLASS.	CAPACITY TO LIFT.	Clear Heights of Lift.	Weight of Machine including Chains.	PRICE.	CLASS.	CAPACITY TO LIFT.	Clear Heights of Lift.	Weight of Machine including Chains.	PRICE.
A	500 lbs	8 ft.	26½ lbs.	\$22 50	H	8,000 lbs	10 ft.	.....	\$ 95 00
B	1,000 “	8 “	44 “	25 00	K	10,000 “	12 “	.....	140 00
C	2,000 “	8 “	54¾ “	30 00	L	12,000 “	12 “	.....	.....
D	3,000 “	8 “	90¼ “	40 00	M	16,000 “	12 “	.....	.....
E	4,000 “	9 “	.....	60 00	O	20,000 “	12 “	.....	.....
G	6,000 “	10 “	.....	75 00					



## Overhead Railways.

### Double Wheel Safety Carrier for Hand Hoists and Differential Blocks.



The advantages of a system of Overhead Railways in Machine Shops, Factories, Stores and Warehouses, are acknowledged by all leading manufacturers. The saving of time and labor in transporting loads from one place to another, the gaining of floor space and all possible head room, which would otherwise be obstructed by tracks of Railways or Hand Trucks, will in a short time repay the cost of the plant.

The accompanying illustration shows a Double Wheel Safety Guard Trolley or Carrier, which is recommended as perfectly safe and reliable; being provided with a wheel at the bottom of the rail, it will not lurch or jump, but run smoothly under a pull from below.

Fitted to be used with  $\frac{1}{4} \times 3$  inch flat iron rail.

Price . . . . . \$7 50

### Heavy Wrought Strap Swivel Hook, Hoist Wheel.



Fig. 1.



Fig. 2.

Diameter of Wheel 12 In. Width of Score  $1\frac{1}{4}$  In. Suitable for Rope  $1\frac{1}{4}$  In. Diameter.

Fig. 1 shows the Hoist Wheel complete, ready for use.

Fig. 2 the Wheel only, showing the Roll or Bushings in the center of the Hub, etc.

These Wheels are specially adapted for use in Furniture, Grocery and Feed Stores, by Farmers, Carpenters and Builders, Ice and Fish Dealers, and by any one who has light hoisting to do.

They are HANDY TO PUT UP and CHANGE from place to place, and having a LARGE DIAMETER and being ROLLER BUSHED, the load is raised with greater ease and more quickly than by the plain wheel or the ordinary block.

Price . . . . . Each, \$3 50

## Blocks.

## ROPE STRAPPED.

SINGLE.  
Style No. 1.DOUBLE.  
Style No. 2.TRIPLE.  
Style No. 3.LOOSE HOOK.  
Style No. 7.LOOSE HOOK.  
Style No. 8.LOOSE HOOK.  
Style No. 9.

## PRICES AND DESCRIPTION.

## Rope Strapped Blocks.

DIMENSIONS.			PLAIN SHEAVE.			PATENT SHEAVE.		
Size Sheave.	For Diam. Rope.	Size Shell.	Single.	Double.	Triple.	Single.	Double.	Triple.
1 3/4 x 1/2 x 3/8	3/8	3 Inches.	\$0 55	\$0 95	\$1 45	\$0 90	\$1 75	\$2 50
2 1/4 x 5/8 x 3/8	1/2	4 "	0 65	1 15	1 75	1 10	2 00	3 00
3 x 3/4 x 3/8	5/8	5 "	0 75	1 45	2 00	1 20	2 30	3 30
3 1/2 x 7/8 x 1/2	3/4	6 "	0 95	1 75	2 60	1 45	2 75	4 00
5 x 1 1/8 x 5/8	7/8	8 "	1 40	2 60	3 75	2 10	3 85	5 50
6 1/4 x 1 1/4 x 3/4	1 1/8	10 "	2 20	3 95	5 00	3 15	5 75	8 00
8 x 1 3/8 x 3/4	1 1/4	12 "	3 00	5 50	7 50	4 25	7 50	11 00
9 1/2 x 1 1/2 x 7/8	1 3/8	14 "	4 00	7 00	10 50	5 50	10 00	14 50

## Iron Strapped Blocks.

Size Sheave.	For Diam. Rope.	Size Shell.	Single.	Double.	Triple.	Single.	Double.	Triple.
1 3/4 x 1/2 x 3/8	3/8	3 Inches.	\$0 60	\$1 00	\$1 60	\$1 00	\$1 85	\$2 75
2 1/4 x 5/8 x 3/8	1/2	4 "	0 70	1 25	2 00	1 20	2 25	3 25
3 x 3/4 x 3/8	5/8	5 "	0 90	1 75	2 25	1 25	2 35	3 50
3 1/2 x 7/8 x 1/2	3/4	6 "	1 10	2 00	2 90	1 50	2 85	4 40
5 x 1 1/8 x 5/8	7/8	8 "	1 65	2 85	4 25	2 25	4 15	6 00
6 1/4 x 1 1/4 x 3/4	1 1/8	10 "	2 50	4 25	5 50	3 30	5 80	8 50
8 x 1 3/8 x 3/4	1 1/4	12 "	3 25	5 85	8 00	4 25	7 75	11 50
9 1/2 x 1 1/2 x 7/8	1 3/8	14 "	4 25	7 25	10 75	5 50	9 75	15 00
11 x 1 3/4 x 7/8	1 3/4	16 "	6 25	10 50	15 00	7 75	13 00	20 00

## Snatch Blocks.



Clasp Closed.



Clasp Opened.



Clasp Opened.



Clasp Closed.

## WOOD SIDES.

## ALL IRON.

For Diam. Rope.	Size Shell.	Price, Each.	For Diam. Rope.	Size.	Price, Each.
7/8	6 Inches.	\$3 60	7/8	6 Inches.	\$3 90
1	7 "	4 00	1	7 "	4 50
1 1/8	8 "	5 00	1 1/8	8 "	5 50
1 1/4	9 "	6 00	1 1/4	9 "	6 50
1 1/2	10 "	7 00	1 1/2	10 "	8 25
1 3/4	12 "	8 00	1 3/4	12 "	10 00
2	14 "	10 00	2	14 "	12 00
	16 "	12 00		16 "	15 00

# Price List of Steel.

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## Tool Steel.

### Round, Square and Octagon.

5/8 to 2	Base.	cent per lb extra	5/16 to 1 1/2	5/10 cent per lb extra
2 1/8 " 3	1	" "	7/16 to 3/8	1
3 1/8 " 4	1 5/10	" "	5/16 and 11/32	2
4 1/8 " 5	2	" "	1/4 and 9/32	3
5 1/8 " 6	2 5/10	" "	3/16	5
6 1/8 " 7	3	" "	5/32	10
7 1/8 " 8	3 5/10	" "	1/8	18

### Flat.

2 to 9/16 in. wide x 2 to 5/8 in. thick.	Base.	cts. per lb ex	5/16 x 3/8 to 5/8	1 5/10 cents per lb extra
1/8 x 3/16	20	" "	5/16 x 11/16 " 8	1
1/8 x 1/4	15	" "	3/8 x 7/16 " 8	1
1/8 x 5/16	8	" "	7/16 x 1/2 " 8	1
1/8 x 3/8	4	" "	1/2 x 9/16 " 8	1
1/8 x 7/16 to 1/2	3	" "	9/16 x 2 1/8 " 8	1
1/8 x 9/16 to 7	2	" "	9/16 to 2 in. x 5/8 to 2 in.	0
1/8 x 7 1/8 to 8	3	" "	5/8 " 2 in. x 2 1/8 " 7 in.	1
3/16 x 1/4	5	" "	5/8 " 1 3/4 x 7 1/8 " 8	1
3/16 x 5/16	4	" "	1 7/8 " 2 x 7 1/8 " 8	1 5/10
3/16 x 3/8	3	" "	2 1/8 " 3 x 2 1/8 " 5	1
3/16 x 7/16 to 5/8	2	" "	2 1/8 " 3 x 5 1/8 " 8	1 5/10
3/16 x 11/16 " 2	1 5/10	" "	3 1/8 " 4 x 3 1/8 " 6	1 5/10
3/16 x 2 1/8 " 7	1	" "	3 1/8 " 4 x 6 1/8 " 8	2
3/16 x 7 1/8 " 8	2	" "	4 1/8 " 5 x 4 1/8 " 7	2
1/4 x 5/16 " 3/8	2	" "	4 1/8 " 5 x 7 1/8 " 8	2 5/10
1/4 x 7/16 " 5/8	1 5/10	" "	5 1/8 " 6 x 5 1/8 " 8	2 5/10
1/4 x 11/16 " 2	1 5/10	" "	6 1/8 " 7 x 6 1/8 " 7	3
1/4 x 2 1/8 " 7	1	" "	6 1/8 " 8 x 7 1/8 " 8	3 5/10
1/4 x 7 1/8 " 8	2	" "		

## Crucible Machinery.

### Rounds and Squares.

3/4 to 3 inches.	Base.	5/10 cent extra	3/8 to 7/16 inches	5/10 cent extra
3 1/8 " 4	1	" "	5/16 and 11/32	1
4 1/8 " 5	1	" "	1/4 and 9/32	1 5/10
5 1/8 " 6	1 5/10	" "	3/16	3
1/2 " 11/16	2/10	" "		

Flats, one-half the extras of the flat tool steel classification.

## Machinery Steel.

### Machinery Rounds and Squares.

3/4 to 3 inches, inclusive.	Base.	3/10 cent extra	3/8 to 7/16 inches	3/10 cent extra
3 1/8 " 4	3/10 cent extra		5/16 and 11/32	5/10
4 1/8 " 6	1	" "	1/4 " 9/32	7/10
1/2 " 11/16	2/10	" "		

### Machinery Flats.

1 1/4 inches and wider x 3/8 to 1 inch thick.	Base.	5/10 cent extra	3/4 in. to 1 1/8 inches x 1/8 and 5/32 in. thick	5/10 cent extra
1 1/4 " " x 1/4 to 5/16 " "	1/10 cent extra		3/8 " " 5/8 " x 1/4 to 1/2 " "	3/10
1 1/4 " " x 9/16 and 7/32 " "	2/10	" "	3/8 " " 5/8 " x 3/16 and 7/32 " "	5/10
1 1/4 " " x 1/8 and 5/32 " "	3/10	" "	3/8 " " 5/8 " x 1/8 " 5/32 " "	7/10
3/4 " to 1 1/8 in. x 1/4 to 1 " "	2/10	" "	3/8 " " 1 1/8 " x 1/16 " 3/32 " "	2
3/4 " " 1 1/8 " x 3/16 and 7/32 " "	3/10	" "	1 1/4 " " 3 " x 1/16 " 3/32 " "	1

### Tire Steel, Round Edge.

1 1/4 inches and wider x 3/8 to 1 inch thick.	Base.
Extras same as Flat Machinery Extras.	

### Toe-Calk Steel.

1 1/4 inches and wider x 3/8 to 1 inch thick.	Base.
Extras same as Flat Machinery Extras.	

### Sleigh Shoe Steel.

1 1/4 inches and wider x 3/8 to 1 inch thick.	Base.
Extras same as flat Machinery Extras.	

### Spring Steel, Flat.

1 1/4 to 4 in. x No. 4 gauge to 1 2 in inclusive.	Base.
1 and 1 1/8 " x " 1 " 4 gauge	2/10 ct. ex.
1 to 3 " x " 5 " 7	5/10
7/8 " 3 " x " 8 " 10	1
3/4 " 3 " x " 11 " 16	2
3/4 " 3 " x " 17 " 20	3 5/10
3/8 " 5/8 " x " 10 " 16	4
3/8 " 5/8 " x " 17 " 20	5
3/8 " 5/8 " x " 21 " 24	6

FOR STEEL PLATES, SEE PAGE 351.

Pacific Coast Agents for the Sale of "R. Mushets' Special Steel."

NEITHER HARDENING OR TEMPERING REQUIRED.



## Price Current Iron.

Refined Iron	cts. Base.	Burden Best and Ulster Iron	cts. Base.
Norway and Swedes Iron	cts. Base.		

Base Sizes, Rounds and Squares, 3/4 to 2 Inches, Flats, 3/8 to 1 x 1 to 4 Inches.

For Extra Sizes add to Base Prices as Follows.

## ROUND AND SQUARE REFINED.

3/16 inch	Advance on Base Sizes	4	cts.
1/4 "	"	2	"
5/16 "	"	1 1/2	"
3/8 and 7/16 inch	"	1	"
1/2 "	"	1 1/2	"
5/8 "	"	1 1/4	"
2 1/8 to 2 3/4	"	1 1/4	"
3 "	"	1 1/2	"
3 1/2 "	"	3/4	"
3 5/8 "	"	1	"
4 1/4 "	"	1 1/4	"
4 5/8 "	"	1 1/2	"
5 1/4 and 5 1/2	"	2	"
5 3/4 "	"	3	"

## BAND IRON REFINED.

1 1/2 to 6	by No. 9 to 3/16	Advance	5/10	cts.
1 1/2 "	6 " Nos. 10 "	12	7/10	"
1 "	1 3/8 " No. 9 "	3/16	6/10	"
1 "	1 3/8 " Nos. 10 "	12	8/10	"
7/8 and 13/16	" No. 9 "	3/16	9/10	"
7/8 "	13/16 " Nos. 10 "	12	1 1/10	"
3/4 "	11/16 " No. 9 "	3/16	1 2/10	"
3/4 "	11/16 " Nos. 10 "	12	1 4/10	"
5/8 "	9/16 " No. 9 "	3/16	1 5/10	"
5/8 "	9/16 " Nos. 10 "	12	1 7/10	"
1/2 inch	by No. 9 to 3/16		1 8/10	"
1/2 "	" Nos. 10 "	12	2	"

## FLAT REFINED IRON.

1/4 and 5/16 by 1/2 inch	Advance	2	cts.
1/4 " 5/16 " 5/8 "	"	1 1/2	"
1/4 " 5/16 " 3/4 and 7/8	"	1	"
1/4 " 5/16 " 1 to 5	"	1 1/2	"
1/4 " 5/16 " 5 1/4 to 6	"	1	"
3/8 " 7/16 " 1/2	"	2	"
3/8 to 9/16 " 5/8	"	1 1/4	"
3/8 " 5/8 " 3/4 and 7/8	"	1	"
3/8 " 1 " 4 1/4 to 6	"	1 1/2	"
1 1/8 " 1 1/2 " 1 3/4 " 4	"	1 1/2	"
1 1/8 " 1 1/2 " 4 1/4 " 6	"	3/4	"
1 5/8 " 2 " 2 1/2 " 4	"	1	"
1 5/8 " 2 " 4 1/4 " 6	"	1 1/2	"

## HOOP IRON REFINED.

1 1/4 to 4, Nos. 13 to 15	Advance	1 4/10	cts.
1 1/4 " 2, " 16 " 18	"	1 5/10	"
1 1/4 " 2, No. 19	"	1 6/10	"
1 1/4 " 2, " 20	"	1 7/10	"
1 1/4 " 2, " 21	"	1 8/10	"
1 1/4 " 2, " 22	"	1 9/10	"
1 and 1 1/8, Nos. 13 to 15	"	1 6/10	"
1 " 1 1/8, " 16 " 18	"	1 7/10	"
1 " 1 1/8, " 19 and 20	"	1 8/10	"
1 " 1 1/8, No. 21	"	1 9/10	"
1 " 1 1/8, " 22	"	2	"
7/8, Nos. 13 to 15	"	1 8/10	"
7/8, " 16 " 18	"	1 9/10	"
7/8, " 19 and 20	"	2	"
7/8, No. 21	"	2 1/10	"
7/8, " 22	"	2 2/10	"
3/4, Nos. 16 to 18	"	2 3/10	"
3/4, " 19 and 20	"	2 4/10	"
3/4, No. 21	"	2 5/10	"
3/4, " 22	"	2 6/10	"
5/8, Nos. 16 to 18	"	2 8/10	"
5/8, " 19 and 20	"	2 9/10	"
5/8, No. 21	"	3	"
5/8, " 22	"	3 1/10	"
5/8, " 23	"	3 2/10	"
1/2, Nos. 16 to 18	"	3 2/10	"
1/2, " 19 and 20	"	3 4/10	"
1/2, No. 21	"	3 5/10	"
1/2, " 22	"	3 6/10	"
1/2, " 23	"	3 7/10	"

## ANGLE REFINED IRON.

1/8 by 3/4 to 1 inch	Advance	3	cts.
1/8 " 1 1/4 and wider	"	2 1/2	"
3/16 " 7/8 and 1 inch	"	2 1/2	"
3/16 " 1 1/4 and wider	"	1 1/2	"
1/4 " 1 inch and wider	"	1 1/2	"
3/8 and thicker, all widths	"	1	"

OVAL, HALF OVAL AND HALF ROUND  
REFINED.

3/8 inch	Advance	2 1/2	cts.
1/2 "	"	2	"
5/8 " and wider	"	1 1/2	"

# Price Current Iron.

CONTINUED FROM PAGE 350.

## GALVANIZING HOOP IRON.

5/8 inch, Advance per Pound	4 1/4 cts.
3/4 " " " "	4 "
7/8 " " " "	3 3/4 "
I " " " "	3 1/2 "
I 1/8 " " " "	3 1/4 "
I 1/4 " " " "	3 "

## GALVANIZING BAND IRON.

All Sizes, Advance per Pound	2 3/4 cts.
------------------------------	------------

## GALVANIZING BAR IRON.

Standard Sizes	Per Pound, 2 cts.
----------------	-------------------

## NORWAY AND SWEDES IRON.

Nail Rods	Advance 1 3/4 cts.
Spike " 3/8	" 1 "
" " 1/2	" 1/2 "
Shoe Shape, 1/2 x 3/4 and 7/8	Base Price.

Balance of sizes of Norway advance over Norway Base same as Refined Iron.

## BURDEN'S BEST AND ULSTER IRON.

ROUNDS.	1/4 and 5/16 inch	Advance 1 1/4 cts.
	3/8 " 7/16 "	" 1/2 "
	1/2 " 5/8 "	" 1/4 "
	2 1/8 to 3 "	" 3/4 "
Oval, Half Oval and Half Round		3/4 "

## PLATE IRON.

### PRICE GIVEN ON APPLICATION.

	PER POUND.		PER POUND.
Blue Annealed, Nos. 14 to 16	..... cts.	C. H. No. 1 Flange	..... cts.
C. H. No. 1 Plate, No. 12 to 1/2 inch	..... "	Boiler Heads C. H. No. 1 Flange	..... "

## ROLLED BEAMS AND CHANNELS.

	PER POUND.	EXTRAS.	PER POUND.
I Beams, Iron	..... cts.	Lengths over 30 feet and not over 35 feet	1/4 ct.
I " Steel	..... "	" " 35 " " " 40 "	1/2 "
Bulb Deck Beams, Iron	..... "	" " 40 " " " 45 "	3/4 "
" " " Steel	..... "	Punching or Drilling, without other work	1/10 "
Bulb Angle " Iron	..... "	For Framing, Beveling Ends, Milling, Cambering, or	
" " " Steel	..... "	any other work, other than Drilling or Punching	1/4 "
Channel Bars, Iron	..... "	Punching or Drilling, including other work	3/10 "
Channel Bars, Steel	..... "	Painting	1/10 "

Base Sizes are 30 feet and shorter.

# Price List Steel.

CONTINUED FROM PAGE 349.

## STEEL PLATES.

### PRICES ON APPLICATION.

	PER POUND.		PER POUND.
Tank Steel	..... cts.	Flange Steel	..... cts.
Ship Plate Steel	..... "	Fire Box "	..... "
Girder " " "	..... "	Marine Boiler Steel	..... "
Shell " " "	..... "	Steel Boiler Heads	..... "

SPECIAL ATTENTION IS CALLED TO OUR STOCK OF

## POLISHED STEEL SHAFTING

FOR

PISTONS, SPINDLES, ETC.

### PRICES GIVEN ON APPLICATION.

Perfectly Round and True Gauge.

Ready for use, no turning necessary.

We keep in stock 3/8 to 3 in., advancing above one inch diameter by 1/16 of an inch.

WEIGHT OF FLAT IRON, PER FOOT.										Weight of Round Iron, Per Foot.				Weight of Square Iron, Per Foot.		Weight of Sheet Iron, ½ Square Ft.		Weight of Plate Iron, ¾ Square Ft.	
SIZE.	¼	⅜	½	⅝	¾	⅞	1	1¼	1½	In.	Lbs.	In.	Lbs.	In.	Lbs.	No.	Lbs.	In.	Lbs.
1	.83	1.25	1.66	2.08	2.50	2.91	3.33	4.16	5.00	¼	.163	1¼	8.01	¼	.208	5	8.74	1/8	5.054
1¼	1.04	1.56	2.08	2.60	3.12	3.64	4.16	5.20	6.25	⅜	.368	1½	9.02	⅜	.468	6	8.12	3/16	7.578
1½	1.25	1.87	2.50	3.12	3.75	4.37	5.00	6.25	7.50	½	.654	2	10.47	½	.833	7	7.50	1/4	10.00
1¾	1.45	2.18	2.91	3.64	4.39	5.10	5.83	7.28	8.75	⅝	1.02	2½	11.82	¾	1.87	8	6.86	5/16	12.50
2	1.66	2.50	3.33	4.16	5.00	5.83	6.66	8.32	10.00	¾	1.47	2¾	13.25	¾	2.55	10	5.62	3/8	15.00
2½	2.08	3.12	4.16	5.20	6.25	7.29	8.33	10.41	12.50	⅞	2.00	2¾	14.76	1¼	5.20	12	4.38	7/16	17.50
3	2.50	3.75	5.00	6.25	7.50	8.75	10.00	12.50	14.99	1	2.61	2½	16.36	1½	7.50	14	3.12	1/2	20.00
3½	2.91	4.37	5.83	7.29	8.75	10.20	11.66	14.57	17.49	1¼	3.31	2¾	18.03	1¾	10.20	16	2.50	9/16	22.50
4	3.33	5.00	6.66	8.32	10.00	11.66	13.33	17.00	19.99	1½	4.09	2¾	19.79	2	13.30	18	1.86	5/8	25.00
4½	3.74	5.62	7.50	9.36	11.25	13.12	15.00	18.74	22.50	1¾	4.94	2¾	21.63	2¼	16.80	20	1.54	3/4	30.00
5	4.16	6.25	8.32	10.40	12.50	14.58	16.66	20.82	25.00	1½	5.89	3	23.56	2½	20.80	22	1.25	7/8	35.00
6	5.00	7.50	10.00	12.50	15.00	17.50	20.00	24.98	29.99	1¾	6.91	3½	32.07	3	30.00	24	1.00	1	40.00
														3½	40.80	25	.90		
														4	53.30	26	.80		
														4½	67.50	27	.70		

### Weight of Angle Iron.

[illegible]

### Weight of Cast Steel.

FLAT STEEL, PER FOOT.											SQUARE STEEL, PER FOOT.								
Thick	1	1½	1¾	1⅝	1½	1¾	2	2¼	2½	Wide.	¼	⅜	½	⅝	¾	⅞	1	1½ In.	
											.213	.479	.855	1.33	1.91	2.61	3.40	4.34	
¼	.852	.958	1.06	1.17	1.27	1.49	1.70	1.91	2.13	....	1½	1⅝	1½	1⅝	1¾	1⅞	2	2½	
⅜	1.27	1.43	1.59	1.75	1.91	2.23	2.55	2.87	3.20	....	5.32	6.44	7.67	9.00	10.34	11.98	13.63	15.80	
½	1.80	1.91	2.13	2.34	2.55	2.98	3.40	3.83	4.26	....	2¾	2⅝	2½	2⅝	2¾	2⅞	3	4	
⅝	2.13	2.39	2.66	2.92	3.19	3.72	4.26	4.79	5.32	....	17.20	19.17	21.21	23.41	25.70	28.10	30.60	54.40	
¾	2.54	2.86	3.18	3.50	3.82	4.46	5.10	5.74	6.40	....	ROUND STEEL, PER FOOT.								
⅞	2.98	3.34	3.72	4.09	4.46	5.21	5.96	6.70	7.46	....	¼	⅜	½	⅝	¾	⅞	1	1½	
1	3.40	3.82	4.26	4.68	5.10	5.96	6.80	7.66	8.52	....	.167	.376	.669	1.04	1.50	2.05	2.67	3.38	
											1½	1⅝	1½	1⅝	1¾	1⅞	2	2½	
											4.18	5.06	6.02	7.07	8.20	9.41	10.71	12.05	
											2¼	2⅜	2½	2⅝	2¾	2⅞	3		
											13.51	15.05	16.68	18.39	20.18	22.06	24.23		
OCTAGON STEEL, PER FOOT.																			
SIZE, INCHES . . .	½	⅝	¾	⅞	1	1½	1¾	1⅝	1½	1⅝	1½	1⅝	1½	1⅝	1¾	1⅝	1¾	2	
WEIGHT . . . . .	.84	1.23	1.75	2.25	2.75	3.66	4.55	5.50	6.45	7.75	9.20	10.04	11.60						



# Corrugated Sheet Iron.

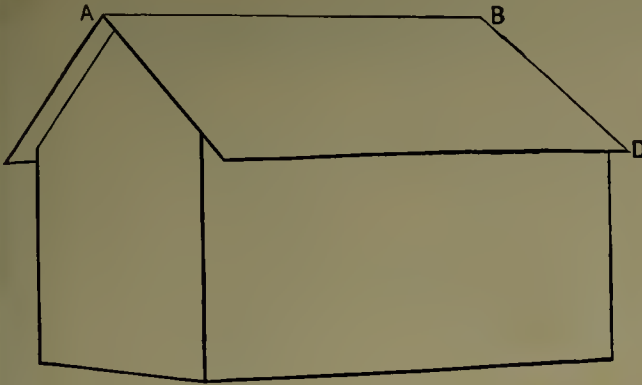


Fig. 1.

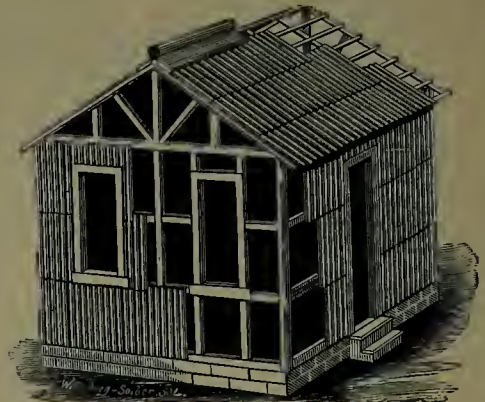


Fig. 2.

In ALL cases where a permanent and fire-proof roof is desirable, this roofing is cheaper than any other. The advantages are :  
**FIRST.**—It is absolutely fire-proof—much safer from fire than tin, because no sheeting is required.

**SECOND.**—It will never wear out, if kept properly painted.

**THIRD.**—It not only requires no sheathing beneath it, but buildings may be constructed with much lighter walls when it is used, because of its lightness. A square of shingle roofing weighs 700 or 800 pounds, while the weight of this roofing is only 120 pounds per square.

**FOURTH.**—It may be readily removed from one building to another, as is not the case with any other roofing or siding.

**FIFTH.**—It can be easily, quickly and cheaply put on. Any person who can use a hammer and nails can do the work.

**SIXTH.**—The lightness of the material will render its freight cost much less than the freight cost of lumber.

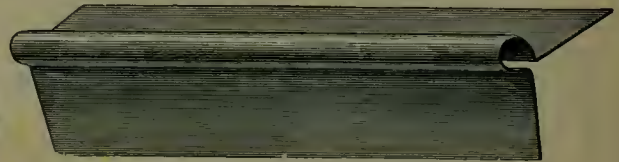
**SEVENTH.**—There is no instance of a corrugated iron building having been struck by lightning.

Fig. 1 shows a building with a peaked roof, and if iron is required or an estimate wanted for such a roof, you should give the length of the line **A B**, and the length of the line **B D**; or, in other words, the total length of the ridge-pole, including the projection at the gable, and the total length of the rafters, including the projection at the eaves. A slight examination of the figure will show precisely what is wanted.

## Combing Strip and Cap.



STRIP.



See Fig. 2.

CAP.

For the purpose of making the joint at the peak of a corrugated iron roof perfectly weather tight, a combing strip and cap is used. A strip of wood, five inches wide, made to fit the corrugations in the iron, is nailed on each side of the peak the whole length of the roof, filling the corrugations so that a flat surface of wood is formed, to which the sheet-iron cap is nailed.

This cap is made as shown in the cut, and the whole forms a perfect and symmetrical comb to the roof. Wood strips are also used around doors and windows.

## Corrugated Sheet Iron.

Weight per Square Foot when Laid :

Wire Gauge,	16	18	20	22	24	26
Pounds,	3 <sup>25</sup> / <sub>100</sub>	2 <sup>80</sup> / <sub>100</sub>	1 <sup>90</sup> / <sub>100</sub>	1 <sup>58</sup> / <sub>100</sub>	1 <sup>30</sup> / <sub>100</sub>	1 <sup>00</sup> / <sub>100</sub>

Standard Sheets are 8 x 2 Feet.

Standard Corrugations are 2 <sup>1</sup>/<sub>2</sub> Inch from center to center, <sup>3</sup>/<sub>4</sub> Inch deep.

Other widths and lengths made to order.

We can furnish the following :

Black	Iron	.	.	.	.	Per Pound, \$ . . .
Painted	"	.	.	.	.	" " . . .
Galvanized	"	.	.	.	.	" " . . .
Kalameined	"	.	.	.	.	" " . . .

**Barbed Wire Nail** is the most suitable for laying Corrugated Iron. 1 <sup>1</sup>/<sub>2</sub> lbs will lay 100 Square Feet.

PRICES FURNISHED ON APPLICATION.



# Carriage and Wagon Axles.

355



Average Weight of Axles.

CONCORD.

COMMON.

Size of Bed.	Length of Box.	Average Weight per Set.	Size of Bed.	Length of Box.	Average Weight per Set.
1 1/8 Inches.	6 1/2 Inches.	47 Pounds.	1 Inches.	6 1/2 Inches.	43 Pounds.
1 1/8 "	7 "	49 "	1 1/8 "	6 1/2 "	56 "
1 1/4 "	6 1/2 "	56 "	1 1/8 "	7 "	58 "
1 1/4 "	7 "	57 "	1 1/4 "	7 "	71 "
1 3/8 "	7 "	70 "	1 1/4 "	7 1/2 "	75 "
1 3/8 "	7 1/2 "	73 "	1 3/8 "	7 1/2 "	86 "
1 1/2 "	7 1/2 "	84 "	1 3/8 "	8 "	87 "
1 1/2 "	8 "	88 "	1 1/2 "	7 1/2 "	98 "
1 1/2 "	8 1/2 "	90 "	1 1/2 "	8 "	101 "
1 5/8 "	8 1/2 "	104 "	1 1/2 "	8 1/2 "	103 "
1 5/8 "	9 "	106 "	1 5/8 "	8 1/2 "	121 "
1 3/4 "	9 "	122 "	1 5/8 "	9 "	124 "
1 3/4 "	9 1/2 "	125 "	1 3/4 "	9 1/2 "	148 "
2 "	9 1/2 "	154 "	1 3/4 "	10 "	150 "
2 "	10 "	167 "	1 3/4 "	10 1/2 "	153 "
2 1/4 "	10 1/2 "	212 "	2 "	10 "	200 "
2 1/4 "	11 "	216 "	2 "	10 1/2 "	205 "
2 1/2 "	10 1/2 "	245 "	2 1/4 "	10 1/2 "	250 "
2 1/2 "	11 "	255 "	2 1/4 "	11 "	254 "
			2 1/2 "	11 "	301 "
			2 1/2 "	12 "	330 "
			2 3/4 "	12 "	375 "
			3 "	12 "	460 "

Above weights must not be considered the exact weight per set, but given as an aid in making estimates on work. Always measure from the inside of flange of the nut, to the inside of collar at the shoulder; this gives the length of box.

Concord Axles

Per Pound, . . . .

Common Axles

Per Pound, . . . .

## Elliptic Springs.



SEAT SPRING.



FULL ELLIPTIC BUTTON HEAD.

Average Weight of Elliptic Springs per Pair.

1 1/4 In. 3 x 34 In., weigh about 28 lbs per pair.	1 1/2 In. 4 x 36 In., weigh about 42 lbs per pair.	1 3/4 In. 6 x 40 In., weigh about 77 lbs per pair.
1 1/4 " 3 x 36 " " " 30 " " "	1 1/2 " 4 x 38 " " " 46 " " "	2 " 4 x 36 " " " 54 " " "
1 1/4 " 4 x 34 " " " 32 " " "	1 1/2 " 5 x 36 " " " 50 " " "	2 " 4 x 38 " " " 60 " " "
1 1/4 " 4 x 36 " " " 35 " " "	1 1/2 " 5 x 38 " " " 51 " " "	2 " 4 x 40 " " " 65 " " "
1 1/4 " 4 x 38 " " " 36 " " "	1 3/4 " 4 x 36 " " " 50 " " "	2 " 5 x 36 " " " 69 " " "
1 3/8 " 3 x 34 " " " 31 " " "	1 3/4 " 4 x 38 " " " 53 " " "	2 " 5 x 38 " " " 76 " " "
1 3/8 " 3 x 36 " " " 33 " " "	1 3/4 " 5 x 36 " " " 60 " " "	2 " 5 x 40 " " " 79 " " "
1 3/8 " 4 x 34 " " " 37 " " "	1 3/4 " 5 x 38 " " " 66 " " "	2 " 6 x 36 " " " 79 " " "
1 3/8 " 4 x 36 " " " 39 " " "	1 3/4 " 5 x 40 " " " 69 " " "	2 " 6 x 38 " " " 85 " " "
1 1/2 " 3 x 34 " " " 34 " " "	1 3/4 " 6 x 36 " " " 69 " " "	2 " 6 x 40 " " " 89 " " "
1 1/2 " 4 x 34 " " " 40 " " "	1 3/4 " 6 x 38 " " " 75 " " "	

Seat Springs, per Pair.

Elliptic Springs, per lb.

Length,	28	30	32	Inch.
1 1/4 x 2 In. Leaves, \$	...	...	...	
1 1/4 x 3 " " "	...	...	...	
1 1/2 x 2 " " "	...	...	...	
1 1/2 x 3 " " "	...	...	...	

1 1/4 In., all Sizes, (not Seat)	\$ . . . .
1 1/2 " and Wider	...

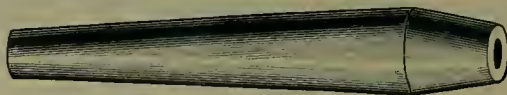


## Beaded Boot Calks and Calk Sets.



FOR LUMBERMEN.

CALK SETS.

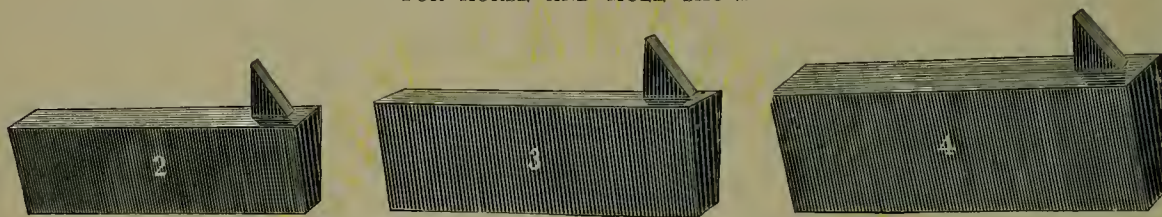


CAST STEEL.

Small Ball Calks, in Boxes of 100	Per M, \$6 00	Medium and Large Heel Calks, in Boxes of 100	Per M, \$10 00
Medium " " " " " 100	" " 7 00	Calk Sets	Per Dozen, 3 00
Large " " " " " 100	" " 8 00	Calk Set and Punch Combined	" " 5 00

## "California" Pattern Steel Toe Calks.

FOR HORSE AND MULE SHOES.



Nos. 0 to 6 in Stock. Put up in Boxes Containing 25 lbs each . . . . . Per Pound, \$0 12

## Horse and Mule Shoes.



Horse Shoe, No. 2, Medium-Fore.



Horse Shoe, No. 3, Heavy-Hind.

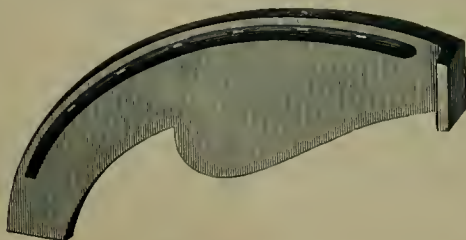


Mule Shoe.

Horse Shoes . . . . . Per Keg, \$ . . . | Mule Shoes . . . . . Per Keg, \$ . . .

## WEIGHTS OF SHOES.

HORSE SHOES.	Light Pattern.	Medium Pattern.	Heavy Pattern.	HORSE SHOES.	Light Pattern.	Medium Pattern.	Heavy Pattern.
No. 0. Fore	12 oz.	...	...	No. 0. Hind	10 oz.	...	...
No. 1. " . . . .	14 "	17 oz.	19 oz.	No. 1. " . . . .	11 "	14 oz.	15 oz.
No. 2. " . . . .	17 "	20 "	23 "	No. 2. " . . . .	14 "	16 "	18 "
No. 3. " . . . .	20 "	24 "	26 "	No. 3. " . . . .	18 "	20 "	23 "
No. 4. " . . . .	24 "	28 "	32 "	No. 4. " . . . .	22 "	24 "	27 "
No. 5. " . . . .	29 "	34 "	39 "	No. 5. " . . . .	27 "	29 "	32 "
No. 6. " . . . .	36 "	41 "	46 "	No. 6. " . . . .	32 "	35 "	38 "
No. 7. " . . . .	...	48 "	...	No. 7. " . . . .	...	38 "	...



## Ox Shoes.

Nos.	1	2	3	4	5
Full Length,	5¼	5½	5¾	6	6¼ Inch.
Weight, per Set of 8,	3	3½	4	5¼	6 lbs.

Mt. Carmel, Greenfield and Sunset Brands. Per Pound, \$ . . .

## Cotter Keys or Split Pins. Pointed.



## PRICE LIST.

NUMBER.	Diameter. Inch.	Length. Inches.	Price per 1000.
30 are 13 Wire Gauge,	$\frac{3}{32}$	$\frac{3}{4}$	\$3 50
31 " 13 "	$\frac{3}{32}$	1	4 00
32 " 11 "	$\frac{1}{8}$	1	4 50
33 " 11 "	$\frac{1}{8}$	1 $\frac{1}{4}$	5 00
34 " 7 "	$\frac{3}{16}$	1 $\frac{1}{4}$	7 00
35 " 7 "	$\frac{3}{16}$	1 $\frac{1}{2}$	7 75
36 " 4 "	$\frac{1}{4}$	1 $\frac{3}{4}$	13 25
37 " 4 "	$\frac{1}{4}$	2	14 50
38 " 1 "	$\frac{5}{16}$	2	19 50
39 " 1 "	$\frac{5}{16}$	2 $\frac{1}{2}$	22 50
40 " — "	$\frac{3}{8}$	3	25 00

## Pointed Belt Hooks.



Nos. 4	5	6	7	8	9	10
Per 1000, \$14 00	11 00	8 50	6 00	5 00	4 00	3 50

## "BLAKE'S"

## Patent Belt Studs.

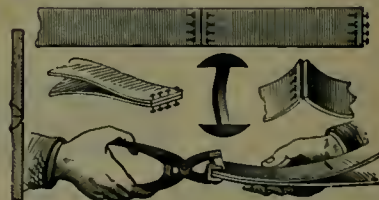
FOR LEATHER AND RUBBER BELTS.

## PRICES.

Nos. 00	0	1	2	3	4
Per 100, \$2 50	2 00	1 65	1 25	0 90	0 80

Cutters for Belting . . . . . Each, \$1 25

Awls . . . . . 25 Cents.



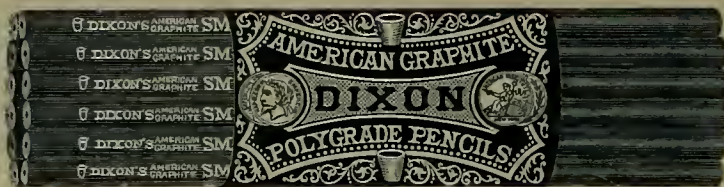
## Round Steel Belt Couplings.



Size,	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1
List per Dozen Pairs, \$2 00	2 50	3 00	4 00	6 00	9 00	13 00	18 00	

FOR COPPER RIVETS AND LACE LEATHER, SEE INDEX.

## "Dixon's" American Graphite Pencils.



NOTE THE FOLLOWING:

S.M. Soft Medium. Old No. 2. M. Medium. Old No. 3.

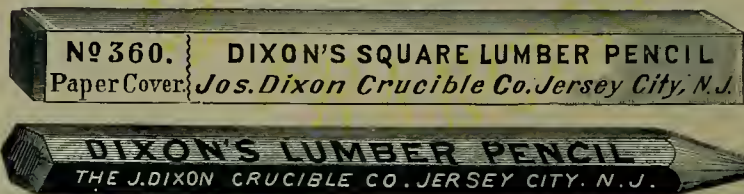
No. 142.	S.M.	Round	Shape,	Finished Cedar	Per Gross, \$5 00
No. 143.	M.	"	"	"	" 5 00
No. 246.	"	"	"	Red	" 2 50
No. 374.	No. 2.	Hexagon	"	Cedar	" 3 50
No. 800.	"	Round	"	"	" 2 00
No. 968.	No. 2.	"	"	"	" 3 00

## "Dixon's" Carpenters' Pencils.



No. 410.	7 Inch.	Oval	Shape,	Polished Cedar	Per Gross, \$3 50
No. 511.	7 "	"	Beveled Edges,	"	" 5 50
No. 514.	7 "	Oval	Shape,	White Wood	" 2 50
No. 526.	7 "	"	"	Black Finish	" 3 50

## "Dixon's" Lumber Pencils.



No. 360.	Square	Finish,	4 1/4 x 1/2	Inch,	Black Lead	Per Gross, \$8 00
No. 361.	Hexagon	"	"	"	"	" 8 00
No. 520.	"	"	"	"	Red	" 9 00
No. 521.	"	"	"	"	Blue	" 9 00



## Pencil Holder for Marking Circles.

TO BE ATTACHED TO DIVIDERS OR COMPASSES.

This is one of the most complete things in use. Easily adjusted and not at all liable to get out of order.

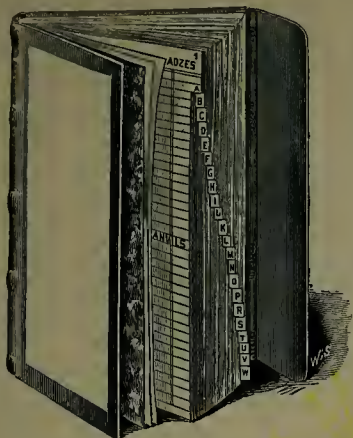
Price . . . . . Per Dozen, \$3 00

## Boiler Maker's Square Soapstone Pencils.

Per Hundred . . . . . \$2 00



## "Lamberson's" Hardware Price Books.



(POCKET EDITION.)

Copyrighted 1884.

250 Pages. 4 x 7 Inches.

This illustration gives a view of the small book. The general plan is the same as in the large book, but the ruling and printing are on a smaller scale. The use of the leather tabs is dispensed with and the index is cut on the front edge. It is small enough to be carried in the pocket, without inconvenience, but the arrangement is so perfect that it will cover a very complete line of hardware.

### Full Leather, with or without Flap,

AS ORDERED.

Price . . . . . \$4 00



Copyrighted 1885.

500 Pages. 6 x 9 1/2 Inches.

This illustration serves to show the general appearance of the large Price Book. Dealers who have copies of the first edition will observe that the old classification is abandoned, and the alphabetical arrangement adopted in its place. The names of different articles are printed at the upper corner of each page. The leather tabs with gilt letters on both sides give a ready reference to the beginning of each letter, and by turning the corners of the pages any item desired in that division can be very quickly found.

On the first page opened to, by the tabs, will be found an INDEX for that particular letter, arranged with two spaces after each item, for additions of other goods in proper alphabetical order.

Sizes of leading lines are printed, and in case of Rules and Planes comparative numbers are given. Lists are omitted for the obvious reason that they are liable to change, but forms are arranged so that lists may be added with pencil. Useful tables are inserted on Strap-hinges, Nuts and Washers, Wire, Rivets, Stocks and Dies, Rope and Nails.

The book is intended primarily for *Salesmen*, but it is no less useful to *Buyers* or *Stock and Entry Clerks*, and can be adapted to any purpose for which a price-book may be required.

### Full Leather, for Office or Store Use.

Price . . . . . \$8 00

## Steel Letters and Figures.



### Steel Letters.

Sizes, To 1/8 In.	3/16	1/4	5/16	3/8	7/16	1/2	
Per Set,	\$3 00	4 50	5 50	7 00	10 00	12 00	13 50

### Steel Figures.

Sizes, To 1/8 In.	3/16	1/4	5/16	3/8	7/16	1/2	
Per Set,	\$1 00	1 50	1 75	2 00	3 00	4 00	5 00

## "The Adamson" Branding Irons.



These Brands will give better satisfaction, brand all articles sharper and deeper, and last longer than any other kind of Branding Iron ever made. Any name or number can be furnished  $\frac{3}{8}$  inch in size. They are compactly and mechanically constructed, and can be taken apart or put together again in a minute's time.

### Holders.

For 5	9	12	14 Letters.
Price, Each, \$1 00	1 50	2 00	2 50

Add for Letters or Numbers required, 10 cents each.

## Dies for Cutting

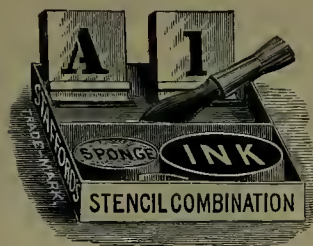
## Stencils, Shipping Marks, Etc., Etc.



### Letters and Figures Complete in a Box.

Sizes, Inch,	$\frac{1}{2}$	$\frac{3}{4}$	1
Per Set,	\$30 00	33 00	35 00

## Stencil Combination.

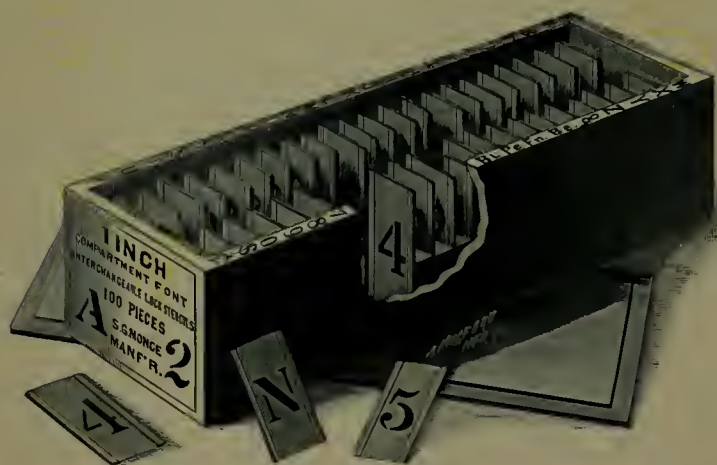


Complete Alphabet and Figures, Ink, Brush and Sponge.

Put up in Boxes of 1 Set.

Sizes, Inch, $\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Per Dozen Sets, \$6 00	6 50	7 00	9 00	10 00	12 00

## Interchangeable Lock Stencils.



HERE ILLUSTRATED, CONSISTS OF 100 PIECES.

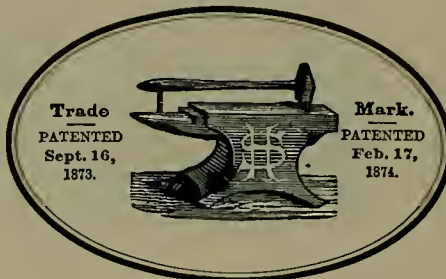
Placed in a wooden box ten and one-half inches long, having a core with slots sawed in it one-fourth of an inch apart, keeping each character in an upright position, with sufficient space between to get at them conveniently.

PRICE, COMPLETE.

Sizes, Inch, $\frac{3}{4}$	1	$1\frac{1}{2}$
Per Set, \$1 75	2 00	2 50



## “Cherry-Heat” Welding Compound.



The Compound is a perfect protection to steel from any degree of heat obtainable in a smith's forge, and consequently, by its aid, many forgings of steel can be made at one heat, that, without it, would require three or more heats.

It will perfectly restore “burnt” steel.

The two properties last mentioned make the Compound of great value in the hands of careless or unskilled workers in steel.

An admixture of the Compound with the molten metal, in the ladle, will purify and strengthen cast-iron.

Broken castings can be re-united at a low heat with the Compound and cast-iron firmly united to either wrought-iron or steel.

Price . . . . .	Per Pound, \$0 30
-----------------	-------------------

### White Chalk.

In Barrels . . . . .	Per Pound, \$0 03
----------------------	-------------------

### Prepared Chalk.

IN BOXES OF HALF GROSS.

White . . . . .	Per Gross, \$1 00   Red . . . . .	Per Gross, \$1 50
Blue . . . . .	Per Gross, \$1 75	

### Borax.

IN BOXES OF 100 POUNDS.

Concentrated . . . . .	Per Pound, \$0 10   Refined . . . . .	Per Pound, \$0 12
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### Plumbago.

Refined . . . . .	Per Pound, \$0 10   XXX Float . . . . .	Per Pound, \$0 15
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#### Dixon's Perfect Lubricator, in Cans of 10 lbs.

Per Pound . . . . .	\$0 20
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#### Dixon's Stove Polish.

Per Gross . . . . .	\$5 50
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### Axle Grease.

The Celebrated H. & L. . . . .	Per Box (2 doz.) \$3 00   Pacific Graphite Perfection . . . . .	Per Box (2 doz.) \$3 50
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## Manufactured by "The California" Powder Works,

SANTA CRUZ, CAL.

## Keg Powder.

DESCRIPTION.	Nos. Grain.	In Kegs.	Per Keg.
Cabinet	1, 2, 3, 4 & 5	6¼ lb.	\$ 5 50
Eureka	1, 2, 3, 4 & 5	6¼ "	4 00
"	1, 2, 3, 4 & 5	12½ "	7 50
"	1, 2, 3, 4 & 5	25 "	14 00
California Sporting	1, 2, 3 & 4	6½ "	3 00
"	1, 2, 3 & 4	12½ "	5 25
"	1, 2, 3 & 4	25 "	10 00
Quail Shooting	1, 2 and 3	6¼ "	2 25
"	1, 2 and 3	12½ "	3 75
"	1, 2 and 3	25 "	7 00
Pacific Rifle	1 and 2	6¼ "	2 25
"	1 and 2	12½ "	3 75
"	1 and 2	25 "	7 00
Sea and River Shooting.	3 and 4	6¼ "	1 87½
"	3 and 4	12½ "	3 25
"	3 and 4	25 "	6 00
Valley Mills	1, 2 and 3	6¼ "	1 75
"	1, 2 and 3	12½ "	3 00
"	1, 2 and 3	25 "	5 50
Cannon Gov. Proof	"	25 "	6 00
Musket	"	25 "	6 00

## Canister Powder.

DESCRIPTION.	Nos. Grain.	In Canisters.	In Cases.	Per Pound.
Cabinet	1, 2, 3, 4 & 5	1 lb.	12 lb.	\$1 00
Eureka	1, 2, 3, 4 & 5	1 "	25 "	70
California Sporting	1, 2, 3 & 4	1 "	25 "	60
"	1, 2, 3 & 4	½ "	25 "	70
"	1, 2, 3 & 4	½ "	12½ "	70
Quail Shooting	1, 2 and 3	1 "	25 "	50
"	1, 2 and 3	½ "	25 "	60
"	1, 2 and 3	½ "	12½ "	60
Pacific Rifle	1 and 2	1 "	25 "	50
"	1 and 2	½ "	25 "	60
"	1 and 2	½ "	12½ "	60
Valley Mills	1, 2 and 3	1 "	25 "	40
"	1, 2 and 3	½ "	25 "	50
"	1, 2 and 3	½ "	12½ "	50
"	1 and 2	¼ "	12½ "	65
Pistol Powder	Best Quality	¼ "	6¼ "	1 00

Blasting and Mining Powder, in 25 lb Kegs, C, FC, FM, F, FF, FFF \$2 50 per Keg.

## California Fuse.

Cement No. 2, for submarine and wet ground blasting.

Cement No. 1, for all wet ground blasting.

Triple Tape, for submarine and wet ground blasting.

Double Tape, for all wet ground blasting.

Single Tape, for wet and dry ground blasting.

Hemp, for dry ground, logs, etc.

## PRICE LIST OF PRIMERS.

● No. 1 Winchester Improved Primers, adapted to .32 Ex. Long, .32, .38, .40 and .44 Winchester, .38 Ex. Long, .44 Evans, .40-60 Marlin, and .45-70 Marlin, in quarter boxes, per M. \$2 00

● No. 1½ Winchester Improved Primers, adapted to .32 S. & W., .32 Colt, .32 Long, .32 Short, .38 Short, .38 M. & H., .38 Long Colt, D. A., .38 S. & W., .41 Colt, D. A., .44 M. & H., .45 Colt, in quarter boxes, per M. \$2 00

Same size as No. 1, but thinner metal and more sensitive.

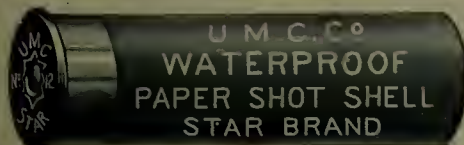
● No. 2 Winchester Improved Copper Primers, adapted to .41, .44 Bull-dog, .44 Webley, .44 S. & W. Russ., .44 S. & W. Am., .44 Colt, .44 Long, .45 Webley, .45 S. & W., .50 Pistol, and Paper and Brass Shot Shells, in quarter boxes, per M. \$2 00

● No. 2½ Winchester Improved Primers, adapted to all Military and Sporting Cartridges, in quarter boxes, per M. \$2 00

Same size as No. 2, but thicker metal and less sensitive.

## Gun Wads.

BLACK EDGE.	Per Dozen Boxes.
No. 4	\$3 50
No. 6	2 90
No. 7 and 8	2 60
No. 9 and 10	2 30
No. 11 to 20	2 00



PINK EDGE.	Per Dozen Boxes.
No. 4	\$7 60
No. 6	5 80
No. 7 and 8	4 90
No. 9 and 10	4 00
No. 11 to 20	3 10



## Paper Shot Shells.

## "STAR" BRAND.

	Per M.
Star Paper Shells, 10, 2½, U. M. C. No. 2 Primer	\$12 00
" " 10, 2½, " " 2 "	12 00
" " 12, 2½, " " 2 "	11 00

## Colt's Pistol Caps.



In tenth boxes Per M., \$ . . . .

## Percussion Caps.



Foil-Lined Waterproof, ground edge, in tenth tin boxes, Per M., \$ . . . .

## Musket Caps.



In tenth boxes, tin Per M., \$ . . . .

## Rim-Fire Cartridges.



	Per M.
22 Short, 50 in box . . . . .	\$ 5 00
22 " 100 " . . . . .	5 00
22 Long, 50 " . . . . .	6 00
22 " 100 " . . . . .	6 00
25 . . . . .	8 50
30 Short . . . . .	9 00
30 Long . . . . .	10 50
32 Short . . . . .	10 00
32 Long . . . . .	11 50
38 Short . . . . .	16 00
38 Long . . . . .	18 00
41 Short . . . . .	15 00
41 Long . . . . .	17 50
44 Short . . . . .	23 00
44 Long . . . . .	25 00
44 Henry, Flat . . . . .	24 00
44 " Pointed . . . . .	25 00
44 Extra Long . . . . .	36 00
46 Pistol, Short, . . . . .	25 00
56-46 Spencer Sporting . . . . .	40 00
56-50 " Carbine . . . . .	40 00
56-52 " Rifle . . . . .	40 00
56-56 " Carbine . . . . .	40 00

## Central-Fire Cartridges.



	Per M.
32 Short, Colt's . . . . .	\$11 00
32 Long . . . . .	12 00
32 Smith & Wesson . . . . .	11 00
32 Winchester . . . . .	16 00
32 Extra Long, Ballard . . . . .	18 00
32 " " Smith & Wesson Rifle . . . . .	20 00
38 Smith & Wesson . . . . .	13 50
38 Short . . . . .	13 50
38 Long, for Colt's Double-Action and other Pistols . . . . .	14 50
38 Winchester . . . . .	19 00
38 Colt's M. R., for Colt's Lightning Rifle . . . . .	19 00
38 Extra Long . . . . .	23 00
41 Short, Colt's Single Action . . . . .	15 00
41 " " Double " . . . . .	15 00
41 Long " " " . . . . .	17 50
44 Smith & Wesson No. 3, American . . . . .	19 00
44 " " " 3, Russian . . . . .	20 00
44 Merwin, Hulbert & Co. . . . .	20 00
44 Colt's . . . . .	20 00
44 Long, Ballard . . . . .	22 00
44 Extra Long, Wesson . . . . .	30 00
44 " " Ballard . . . . .	30 00
44 Winchester . . . . .	19 00
44 Webley . . . . .	16 50
44 Bull Dog . . . . .	14 50

## "Excelsior" Loaded Shotgun Cartridges.

Number 10. G.

PRICE PER HUNDRED,

\$2 75



Number 12. G.

PRICE PER HUNDRED,

\$2 75

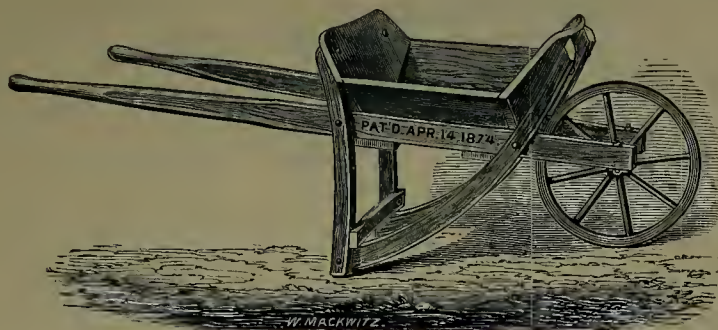
## STANDARD CHAMBERLIN SHOTGUN CARTRIDGES.

Load No.	LOAD.	Size of Shot.	Load No.	LOAD.	Size of Shot.	Load No.	LOAD.	Size of Shot.			
579	4 1/4 Drains Powder	1 1/4 Oz.	BB	660	4 Drains Powder	1 1/2 Oz.	B	723	3 1/2 Drains Powder	1 1/2 Oz.	3
580	" " " "	" " "	B	661	" " " "	" " "	I	724	" " " "	" " "	4
581	" " " "	" " "	I	662	" " " "	" " "	2	725	" " " "	" " "	5
582	" " " "	" " "	2	663	" " " "	" " "	3	726	" " " "	" " "	6
583	" " " "	" " "	3	664	" " " "	" " "	4	727	" " " "	" " "	7
584	" " " "	" " "	4	665	" " " "	" " "	5	728	" " " "	" " "	8
585	" " " "	" " "	5	666	" " " "	" " "	6	729	" " " "	" " "	9
586	" " " "	" " "	6	667	" " " "	" " "	7	730	" " " "	" " "	10
587	" " " "	" " "	7	668	" " " "	" " "	8	745	3 1/4 Drains Powder	1 1/2 Oz.	5
588	" " " "	" " "	8	669	" " " "	" " "	9	746	" " " "	" " "	6
589	" " " "	" " "	9	670	" " " "	" " "	10	747	" " " "	" " "	7
590	" " " "	" " "	10	700	4 Drains Powder	1 1/2 Oz.	B	748	" " " "	" " "	8
605	4 1/4 Drains Powder	1 1/4 Oz.	5	701	" " " "	" " "	I	749	" " " "	" " "	9
606	" " " "	" " "	6	702	" " " "	" " "	2	750	" " " "	" " "	10
607	" " " "	" " "	7	703	" " " "	" " "	3	768	3 1/4 Drains Powder	1 Oz.	8
608	" " " "	" " "	8	704	" " " "	" " "	4	769	" " " "	" " "	9
626	4 1/4 Drains Powder	1 1/4 Oz.	6	705	" " " "	" " "	5	770	" " " "	" " "	10
627	" " " "	" " "	7	706	" " " "	" " "	6	786	3 Drains Powder	1 Oz.	6
628	" " " "	" " "	8	707	" " " "	" " "	7	787	" " " "	" " "	7
646	4 Drains Powder	1 1/4 Oz.	6	708	" " " "	" " "	8	788	" " " "	" " "	8
647	" " " "	" " "	7	709	" " " "	" " "	9	789	" " " "	" " "	9
648	" " " "	" " "	8	720	3 1/2 Drains Powder	1 1/2 Oz.	B	790	" " " "	" " "	10
649	" " " "	" " "	9	721	" " " "	" " "	I				
659	4 Drains Powder	1 1/2 Oz.	BB	722	" " " "	" " "	2				



## Canal Barrows.

CHAMPION.



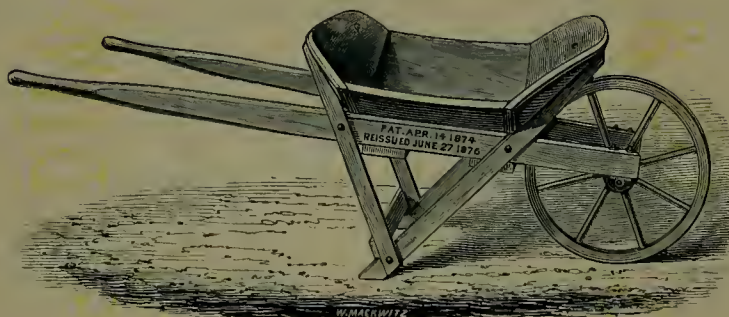
With Iron Wheels

Per Dozen, \$36 00

" Wood "

" " 33 00

CHAMPION, JR.



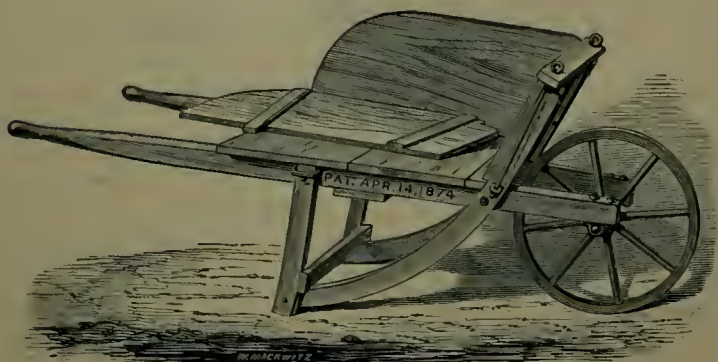
With Iron Wheels

Per Dozen, \$33 00

" Wood "

" " 30 00

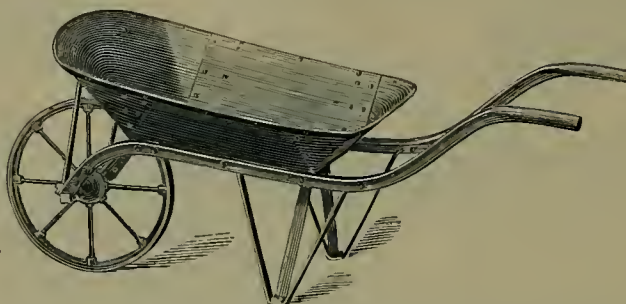
## "Champion" Garden Barrows.



Painted

Per Dozen, \$60 00

## "Sims & Morris" Iron Barrows.



These Barrows are all of Iron, well braced and bolted. The Frame is made of **T** Iron, and found to stand the most severe test, and will not twist out of shape

No. <b>1.</b>	Plain.	Size of Tray, 31 x 26 Inches.	Diameter of Wheel, 17 Inch	Each, \$13 00
No. <b>1.</b>	Bound and Braced.	" " " 31 x 27 "	" " " 17 "	" 15 50
No. <b>1½.</b>	" " "	" " " 32 x 28 "	" " " 17 "	" 17 50
No. <b>2.</b>	" " "	" " " 35 x 30 "	" " " 17 "	" 20 00
No. <b>3.</b>	" " "	" " " 38 x 32 "	" " " 18 "	" 22 50
No. <b>4.</b>	" " "	" " " 41 x 33 "	" " " 18 "	" 24 00

## Store Trucks.



### Wheels Outside.

Nos. <b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Each, \$6 00	8 00	12 00	16 00	20 00

### Wheels Inside.

Nos. <b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
Each, \$6 50	8 50	12 50	17 00

# "Otsego" Forks.

367



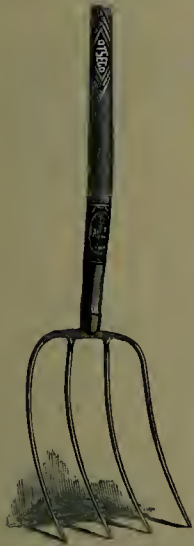
HAY FORK.



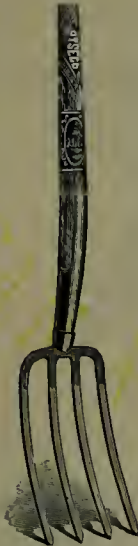
HEADER OR BARLEY FORKS.



MANURE, STRAPPED.



MANURE FORK.  
PLAIN FERRULE.



SPADING FORK,  
STRAPPED.



SLUICE FORK,  
STRAPPED.

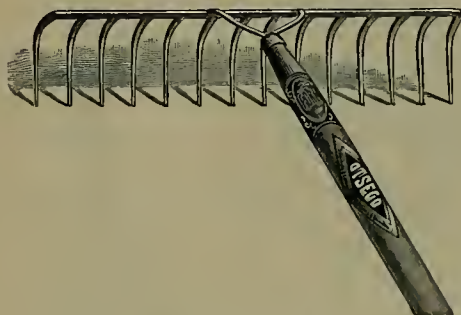


CHARCOAL OR  
COKE FORK.

DESCRIPTION.	Tines.	Handles.	Per Dozen.	DESCRIPTION.	Tines.	Handles.	Per Dozen.
Hay, Strapped . . .	3 x 14 Inch.	6 Ft.	\$12 75	Manure, Strapped .	4	Long	\$14 50
" " " " . . .	3 x 15 "	6 "	13 25	" " " " . . .	4	D	15 00
Header, " " " " . . .	3 x 15 "	4 1/2 or 5 "	13 75	Spading, " " " " . . .	4	Long	19 50
" " " " " " . . .	3 x 16 "	4 1/2 " 5 "	15 00	" " " " " " . . .	4	D	20 00
" " " " " " . . .	4 x 15 "	4 1/2 " 5 "	17 50	Sluice " " " " . . .	8	Long	25 00
Manure, Plain . . .	4 "	Long	12 50	Charcoal, Strapped .	12	D	60 00
" " " " " " . . .	4 "	D	13 50	" " " " " " . . .	12	Long	60 00
				" " " " " " . . .	14	D	70 00
				" " " " " " . . .	14	Long	70 00



## "Otsego" Garden Rakes—Cast Steel.



Braced Shank, Curved Teeth.

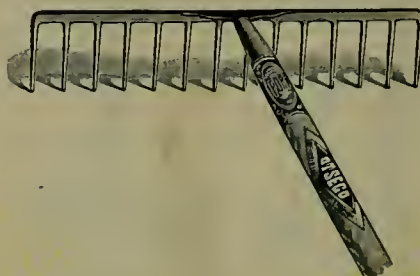
10 Teeth, Cast Steel . . . . .	Per Dozen, \$10 50
12 " " " . . . . .	" " 11 50
14 " " " . . . . .	" " 12 50
16 " " " . . . . .	" " 13 50



Polished Taper Head, Goose Neck Shank.

8 Teeth, Cast Steel . . . . .	Per Dozen, \$ 8 00
10 " " " . . . . .	" " 9 00
12 " " " . . . . .	" " 10 00
14 " " " . . . . .	" " 11 00
16 " " " . . . . .	" " 12 00

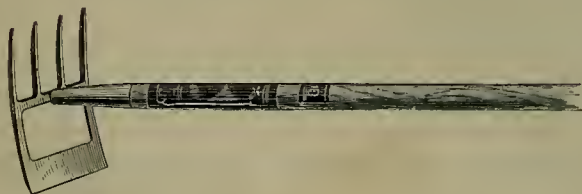
## Garden Rakes—Malleable Iron.



Webb Braced Shank.

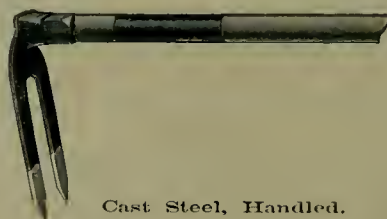
Teeth, 8	10	12	14	16
Per Dozen, \$5 00	5 50	6 00	6 50	7 50

## Weeding Hoes.



6 Teeth, Cast Steel, Full Polish . . . . .	Per Dozen, \$9 50
4 " " " " " . . . . .	" " 8 50

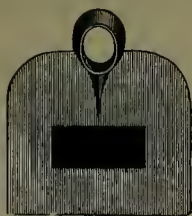
## Grape and Weeding Hoe.



Cast Steel, Handled.

Every Hoe endorsed with the best guarantee respecting quality.
Per Dozen . . . . . \$15 00

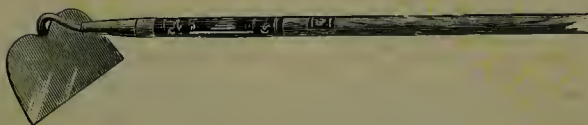
## Planters' Hoes.



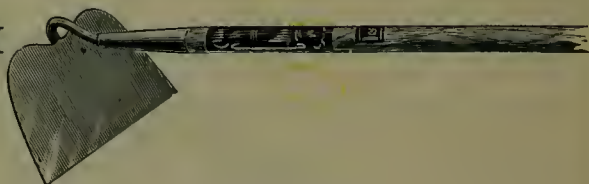
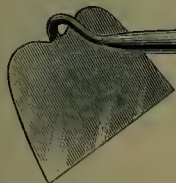
SOLID EYE.

Nos.	2	3	4	5	6
Size, Inch,	8	8½	9	9½	10
Per Dozen, \$	6 50	7 00	7 50	8 00	8 50

## Garden Hoes.



For Ladies, Solid Shank, Cast Steel . . . . . Per Dozen, \$6 00



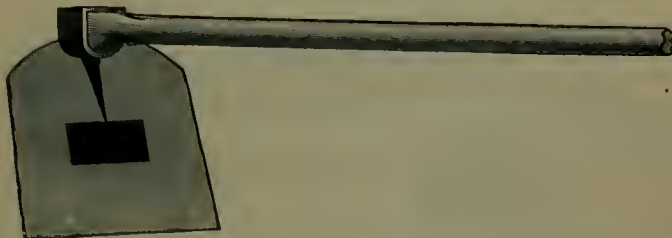
Socket, Cast Steel, 6 to 8 In. Blade . . . Per Dozen, \$9 00 | Solid Shank, Cast Steel, 6 to 8 In. Blade . . Per Dozen, \$ 8 00

## Mortar Hoes.

## Street Hoes.

Solid Shank, 9 In. Blade . . . . . Per Dozen, 12 00 | Solid Shank, 10 In. Blade . . . . . Per Dozen, 13 00

## German Eye Hoes—Handled.

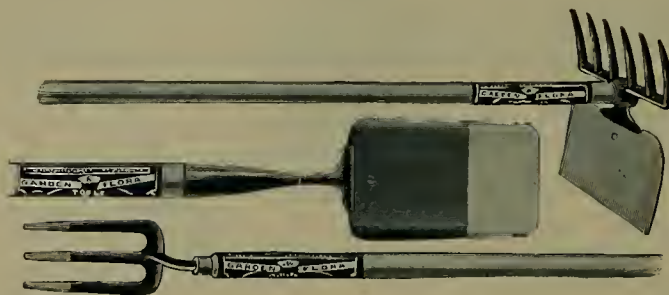


The Eye and Blade being forged entire from ONE SOLID PIECE OF REFINED CRUCIBLE CAST STEEL.

All Bright.

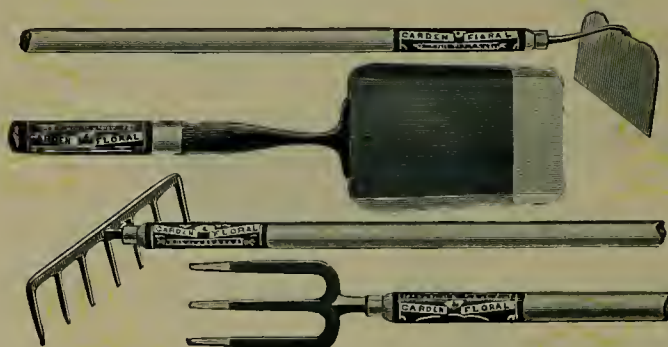
Nos.	4/0	3/0	2/0	1/0
Per Dozen, \$	9 00	9 50	10 00	10 50

## Garden and Floral Sets.



No. 20. Cast Steel Spade, Malleable Iron Fork, and Hoe-Rake, with Steel Blade, Polished, with 30-Inch Varnished Handles to Spade and Hoe-Rake, and 16-Inch Handle to Fork, in Sets, Papered.

Per Dozen Sets . . . . . \$12 00



No. 70. Cast Steel Spade and Hoe, and Malleable Rake and Fork, Polished, with 30-Inch Varnished Handles to Spade, Rake and Hoe, 18-Inch Handle to Fork, in Sets, Papered.

Per Dozen Sets . . . . . \$18 00

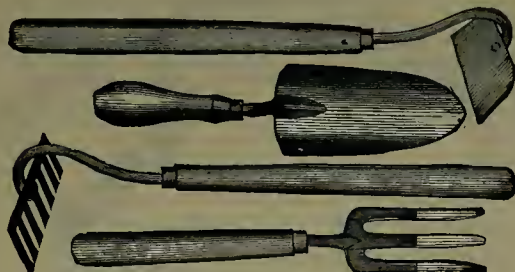


No. 90. Cast Steel Spade, D Handle, Polished Blade, Polished Malleable Iron Rake, 7-Tooth Head, Cast Steel Polished Hoe. Handles to above of Selected White Ash, Belted and Varnished.

Per Dozen Sets . . . . . \$30 00



## Garden and Floral Sets.



No. 4. Four Pieces, Cast Steel Blades, Extra Fine Polished Bronzed Shafts, Fancy Wood Handles.

Per Dozen Sets . . . . . \$9 00

### "Gibbs" Lawn Rake.

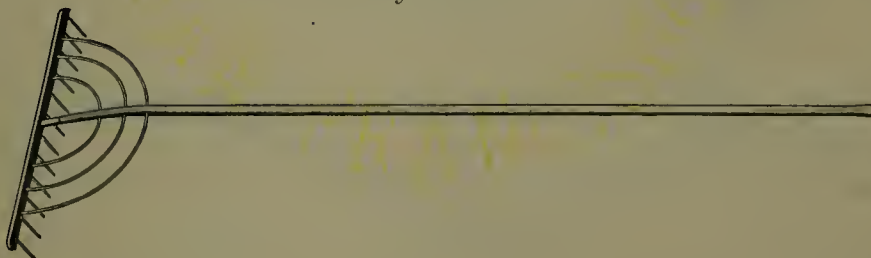
*The Teeth are made of the best quality No. 10 Steel Wire, are close together and so shaped as to comb the lawn and take up the cut grass perfectly without tearing the sod. They are independent, so that in case of injury by accident, are easily replaced at a trifling cost, thus securing almost unlimited durability.*

The Hood will be found indispensable in raking either grass or leaves, as nothing can escape over the head of the Rake, which is 24 inches long.

*To unload, simply push backward without raising the Rake—one motion clears the teeth perfectly of grass, chips or leaves. The ease with which the Rake can be operated will surprise any one accustomed to the best Rakes in use.*

Per Dozen . . . . . \$12 00

### Hay Rakes.



Three Bows, Mortise Head . . . . . Per Dozen, \$6 00

### Lightning Hay Knives.



Per Dozen . . . . . \$24 00

## Grass Hooks.



AMERICAN GRASS HOOKS.

Nos. 2  
Per Dozen, \$5 00

3  
5 50

4  
6 00

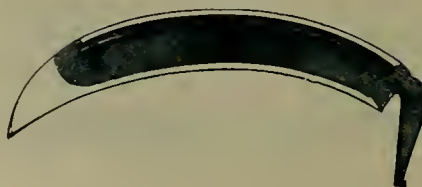
## Handled Bush Hooks.



STRAPPED EYE.

<b>Underhill</b> , Gold Bronzed, Best Cast Steel, Handled . . . . .	Per Dozen, \$15 00
<b>Verkes &amp; Plumb</b> , Medium, Handled . . . . .	" " 15 00
" " " Heavy, " . . . . .	" " 17 00

## Bush Scythes.



Scythes . . . . .	Per Dozen, \$12 00
<b>Snaths</b> . . . . .	Per Dozen, 12 00

Scythes.

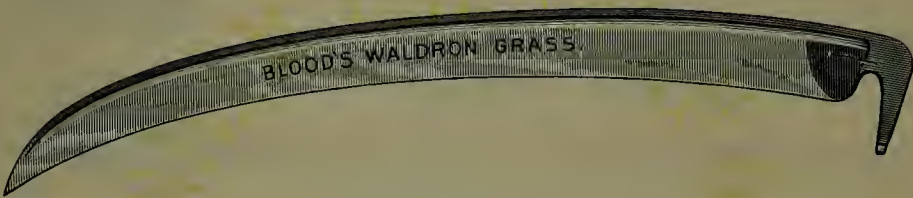
BRAMBLE AND BUSH.



"Blood's."

Per Dozen . . . . . \$12 00

GRASS.



"Blood's."

Waldron Pattern . . . . . Per Dozen, \$10 00

German Steel, Beaded, Painted Red, Half Dozen Assorted in Straw Bundle . . . . . Per Dozen, \$10 00

Snaths.

PATENT SNATH.



Per Dozen . . . . . \$9 00

TWO-RING BUSH SNATH.



Per Dozen . . . . . \$10 00



## Shovels, Spades and Scoops.



D HANDLE SPADE.



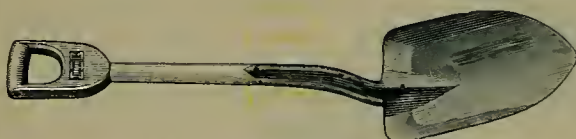
LONG HANDLE SPADE.



LONG HANDLE SHOVEL. Square Point.



LONG HANDLE SHOVEL. Round Point.



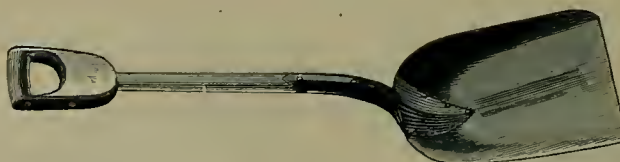
D HANDLE SHOVEL. Round Point.



D HANDLE SHOVEL. Square Point.

BRAND.				Long Handle, Round and Sq. Point, and D Handle, Sq. Point.	D Handle, Round Point.	Long and D Handle Spades.
Ames'	Polished Cast Steel, Back Strapped		Per Dozen,	\$12 00	\$12 75	\$12 00
Comstock's	" " " " " "		" "	11 00	11 50	11 00
Carter's	" " " Plain Back		" "	10 00	11 00	10 00
Hadwin's	" " " " " "		" "	8 00	8 50	8 00
Barton's	" Steel, Back Strapped		" "	7 50	8 00	7 50
Ball's	" Iron, " " "		" "	6 50	6 75	6 50

	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.
Ames' D Handle Black, Coal Shovels . . . Per Dozen,	\$13 00	\$14 00	\$15 00	\$16 00	\$17 00



SCOOPS, D, OR LONG HANDLE.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	No. 8.	No. 10.
Ames' Polished Cast Steel, Double Strapped	\$17 00	\$17 50	\$18 00	\$18 50	\$19 50	.....	.....
Grant's " Steel	12 00	12 50	13 00	13 50	14 00	\$16 00	\$18 00
Naylor's Steel, Half Polished	10 00	10 50	11 00	.....	.....	.....	.....

## Poll Picks.



"Wright's" Norway Picks.

No. 21.	4 lbs	.	.	.	Per Dozen, \$19 00
No. 22.	4½ "	.	.	.	" " 20 00
No. 23.	5 "	.	.	.	" " 21 00
No. 24.	5½ "	.	.	.	" " 22 00
No. 25.	6 "	.	.	.	" " 23 00

"Washoe" Picks.

No. 21.	4 lbs	.	.	.	Per Dozen, \$16 00
No. 22.	4½ "	.	.	.	" " 17 00
No. 23.	5 "	.	.	.	" " 18 50
No. 24.	5½ "	.	.	.	" " 19 00

## Prospectors' Picks.

1¼ lbs, all Steel . . . . . Per Dozen, \$24 00

## Surface Picks.



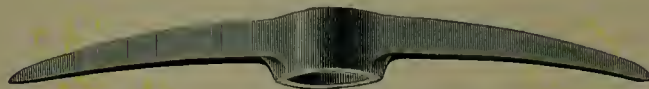
"Wright's" Norway Picks.

No. 3.	5 lbs	.	.	.	Per Dozen, \$21 50
No. 4.	5½ "	.	.	.	" " 22 00
No. 5.	6 "	.	.	.	" " 23 00
No. 6.	6½ "	.	.	.	" " 24 00
No. 7.	7 "	.	.	.	" " 26 00

"Washoe" Picks.

No. 2.	4½ lbs	.	.	.	Per Dozen, \$15 00
No. 3.	5 "	.	.	.	" " 16 00
No. 4.	5½ "	.	.	.	" " 17 00
No. 5.	6 "	.	.	.	" " 18 00
No. 6.	6½ "	.	.	.	" " 19 00
No. 7.	7 "	.	.	.	" " 20 00

## Drifting Picks.



"Wright's" Norway Picks.

No. 15.	3½ lbs	.	.	.	Per Dozen, \$18 00
No. 16.	4 "	.	.	.	" " 19 00
No. 17.	4½ "	.	.	.	" " 20 00
No. 18.	5 "	.	.	.	" " 21 00
No. 19.	5½ "	.	.	.	" " 22 00
No. 20.	6 "	.	.	.	" " 23 00

"Washoe" Picks.

No. 15.	3½ lbs	.	.	.	Per Dozen, \$14 00
No. 16.	4 "	.	.	.	" " 14 00
No. 17.	4½ "	.	.	.	" " 15 00
No. 18.	5 "	.	.	.	" " 16 00
No. 19.	5½ "	.	.	.	" " 17 00
No. 20.	6 "	.	.	.	" " 18 00

## Railroad Picks.



Assorted, 5 to 6 lbs . . . . . Per Dozen, \$12 00

## Coal Miners' Picks.



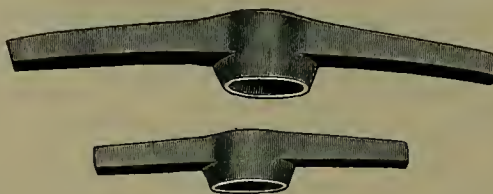
Norway

Per Dozen, \$18 00

Washoe

Per Dozen, \$14 00

## Pick Eyes.

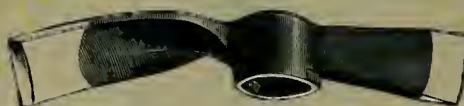


Norway.

Washoe.

2½ to 4½ lbs . . . . .	Per Dozen, \$14 00	2½ to 4½ lbs . . . . .	Per Dozen, \$12 00
5 " 6 " . . . . .	" " 15 00	5 " 6 " . . . . .	" " 13 00

## Mattocks.



Standard.

Hunt's.

Long Cutter . . . . .	Per Dozen, \$15 00	Long Cutter . . . . .	Per Dozen, \$18 50
Short " . . . . .	" " 14 50	Short " . . . . .	" " 18 50

## Pick Mattocks.



Standard.

Hunt's.

Per Dozen . . . . .	\$15 00	Per Dozen . . . . .	\$18 50
---------------------	---------	---------------------	---------

## Grub Hoes.



Nos.	1	2	3
Standard, per Dozen,	\$11 00	11 50	12 00
Hunt's, " " \$13 00		13 50	14 00



# Hickory Handles—Assorted.

377



Turned Axe Handle.



Broad Axe Handle.



Adze Handle.



Drifting Pick Handle.



Surface Pick Handle.



Coal Miners' Pick Handle.



Sledge Handle.

## PRICE LIST.

STYLE.	Length, Inches.	28	30	32	34	36	38	40	42	44
Turned Axe Handles	Extra, Per Dozen,	...	...	...	...	\$3 60	\$3 75	\$4 00	\$5 00	\$7 50
"	No. 1, " "	...	...	...	...	2 00	...	...	...	...
"	No. 2, " "	...	...	...	...	3 00	...	...	...	...
Shaved " "	XXX, " "	...	...	...	...	4 25	...	...	...	...
Boys' " "	No. 1, " "	\$2 25	...	...	...	...	...	...	...	...
"	Extra, " "	2 50	...	...	...	...	...	...	...	...
Broad " "	" " "	...	...	...	\$3 75	...	...	...	...	...
Adze " "	" " "	...	...	...	3 75	...	...	...	...	...
Drifting Pick " "	No. 1, " "	...	...	\$2 75	3 00	...	...	...	...	...
"	Extra, " "	...	...	3 75	4 00	4 25	...	...	...	...
Poll " "	No. 1, " "	...	...	2 75	3 00	...	...	...	...	...
"	Extra, " "	...	...	3 75	4 00	4 25	...	...	...	...
Surface " "	No. 1, " "	...	...	...	...	3 00	...	...	...	...
"	Extra, " "	...	...	...	...	3 75	...	...	...	...
Coal Miners' Pick Handles,	No. 1, " "	...	...	2 25	...	...	...	...	...	...
"	Extra, " "	...	...	2 75	...	...	...	...	...	...
Sledge Handles	No. 1, " "	...	...	...	...	2 00	...	...	...	...
"	Extra, " "	...	\$2 00	2 20	2 40	2 50	2 75	3 00	...	...
"	Shaved, " "	...	...	...	...	3 00	...	...	...	...

# Hatchet and Hammer Handles.



Hatchet Handle.



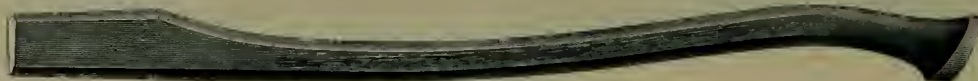
Machinists' Hammer Handle.

## PRICE LIST.

STYLE.	Length, Inches.	13	14	15	16	17	18	20	22	24
Hatchet Handles	Per Dozen,	\$0 75	\$0 75	\$0 75	\$1 00	\$1 25	\$1 50	...	...	...
Adze-Eye Hammer Handles	" "	0 75	0 75	0 75	...	...	...	...	...	...
Hand " "	" "	1 00	1 00	1 00	1 10	...	1 25	\$1 40	\$1 50	\$1 70

# “Q” Handles.

Hand Shaved Axe Handles.



Double Bitted Axe Handles.

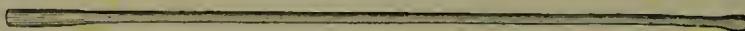


Split from Selected Second Growth Hickory, and all Hand Shaved.

PUT UP IN CRATES OF TWO DOZEN.

	Length, Inches, 36	38	40	42	44
Single and Double Bitted, Q Shaved, Axe Handles, Per Dozen,	\$4 00	4 50	5 00	5 50	6 00

Hoe Handles.



Planters' Hoe Handles . . . . . Per Dozen, \$3 50 | Garden Hoe Handles . . . . . Per Dozen, \$3 00

Bent Fork Handles.



Straight Fork Handles.



Fork Handles, Straight, Ferruled, 5 to 6 ft., Per Doz.,	\$3 50	Fork Handles, Straight, Strapped, 5 to 6 ft., Per Doz.,	\$4 00
“ “ Bent, “ 4½ to 6 ft., “ “	3 50	“ “ Bent, “ 4½ to 6 ft., “ “	4 00

D, Shovel Spade and Scoop Handles.



Shovel Handles, Long . . . . . Per Dozen,	\$3 50	Spade Handles, Long . . . . . Per Dozen,	\$3 50
“ “ D . . . . . “ “	3 50	“ “ D . . . . . “ “	3 50
Rake Handles, Garden . . . . .		Per Dozen,	\$2 50

Cant Hook and Peavey Handles.



Stock of the above Handles, made of Hard Maple and Second Growth White Ash . . . . . Per Dozen, \$6 00

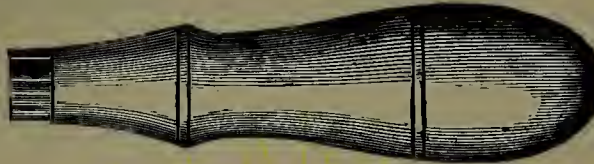
# Chisel Handles.

379



SOCKET FIRMER.

SOCKET FRAMING.



FIRMER.

## Socket Framing Chisel Handles.

No. 34. Hickory, Polished Iron Rings . . . . . Per Gross, \$7 50

## Socket Firmer Chisel Handles.

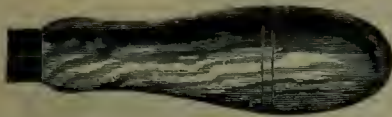
No. 27. Hickory, Assorted, Regular, 4 Sizes . . . . . Per Gross, \$5 00  
 No. 29. Apple Wood, " " 4 " . . . . . " " 5 50

## Firmer Chisel Handles.

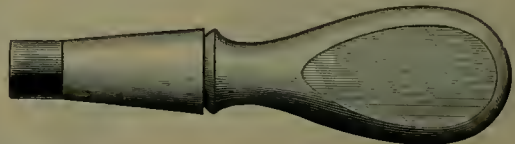
No. 3. Hickory, Assorted, Regular, 6 Sizes . . . . . Per Gross, \$ 5 00  
 No. 4. " " Large 4 " . . . . . " " 6 00  
 No. 25. Apple Wood " Regular, 1 to 3 Inches . . . . . " " 11 00  
 No. 26. " " " " 1/4 " 2 " . . . . . " " 12 00  
 Ship Carpenters' . . . . . " " 12 00

Ship Carpenters' Slick Handles . Per Gross, \$21 00 | Turning Chisel Handles . Per Gross, \$15 00

## File Handles.



## Screw Driver Handles.



No. 4. Beaded, Hard Wood, Brass Ferrules, per Gross, \$5 00  
 No. 5. White Wood, Iron " " 4 00  
 No. 11. Jewelers', Walnut, Ferruled " " 4 00

For Screw Driver. 5 6 7 8 Inch.  
 Per Dozen, \$0 50 0 60 1 00 1 25

## "Douglass" Patent Auger Handles.



In Sets of Two, Fitting any Size of Augers.

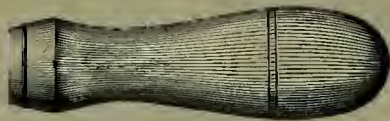
## Auger Handles.



Per Set . . . . . \$1 75 | Hickory . . . . . Per Dozen, \$1 00



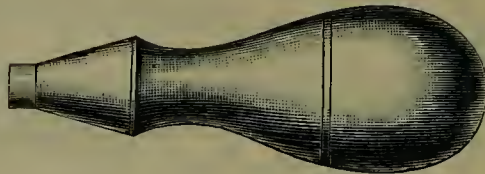
## Soldering Copper Handles.



No. 20. Wire Ferrules

Per Gross, \$6 00

## Brad Awl Handles.



No. 3. Beech Wood, Brass Ferrule

Per Gross, \$3 50

## Plane Handles.



JACK PLANE HANDLE.

Jack

Per Dozen, \$0 75

Fore and Jointer

1 00

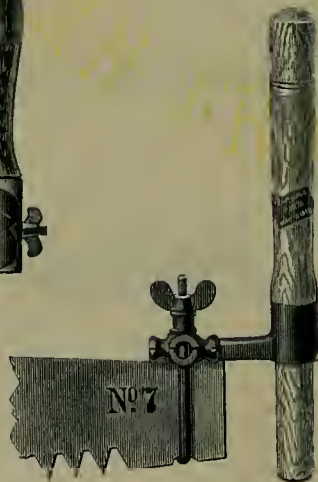


FORE PLANE HANDLE.

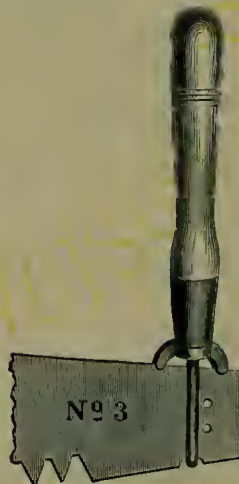
## Cross-Cut Saw Handles.



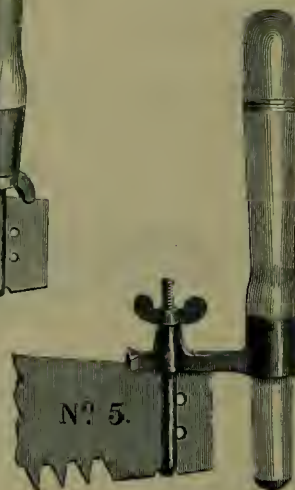
CLIMAX.



No. 7.



No. 3.



No. 5.

## Cross-Cut Saw Handles.

Climax  
No. 3Per Pair, \$0 55  
" " 0 45No. 5  
No. 7Per Pair, \$0 50  
" " 0 60

## Saw Handles.

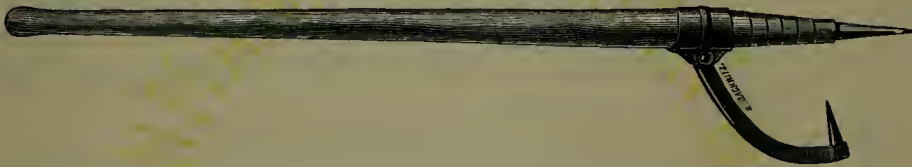
Beech Wood.



Stanley's Saw Handles				Per Dozen, \$1 50
Disston's	"	No. 7		" " 2 50
"	"	No. 12		" " 9 00
"		Butcher Saw Handles		" " 4 50
"		One Man "		" " 4 50

## Handled Peavey and Cant Hook.

PEAVEY.



Norway Clasps.

Steel Hooks, Selected Handles	Per Dozen, \$30 00
-------------------------------	--------------------

CANT HOOK.



Steel Hooks, Selected Handles	Per Dozen, \$24 00
-------------------------------	--------------------

## Rawhide Mallets.



These Mallets are invaluable for Machinists, Workers in Brass or Silver, Jewelry Manufacturers, or for any one who needs to strike a hard blow without bruising the material he is at work upon.

ONE PAIR EXTRA FACES

Included in following Prices :

No. 1.	Weights 1 lb	Each, \$1 00
No. 2.	" 1 1/4 "	" 1 25

## Mallets—Assorted.



Tinner's Mallet.



Round.



Square.



Ring.

## EASTERN MALLETs.

## Tinner's.

Round, Hickory, Assorted

Per Dozen, \$2 00

## Ring.

Round, Hickory, Iron Rings

Per Dozen, \$8 50

## Carpenter's.

Round, Hickory, 6 x 4 Inch

Per Dozen, \$3 50

Square, Hickory, 6 Inch Long

Per Dozen, \$3 50

" " 7 " " " " 4 00

## Lignum Vitæ.

Round, No. 9, 5 x 3 Inch

Per Dozen, \$4 00

Square, No. 8, 6 Inch Long

Per Dozen, \$5 00

" No. 11, 5½ x 3½ " " 5 00

" No. 10, 6½ " " " " 6 00

" No. 13, 6 x 4 " " 6 00

" No. 12, 7 " " " " 7 00

## Long Island Co.'s Second Growth Hickory Mallets.

Round, Hickory, 6 x 3 Inch

Per Dozen, \$5 50

Square, Hickory, 6 Inch Long

Per Dozen, \$8 50

" " 6 x 3½ " " 6 50

" " 7 " " " " 9 00

" " 7 x 4 " " 8 00



Calking Mallet.

## Calking Mallets.

White Oak, Iron Ring

Per Dozen, \$15 00

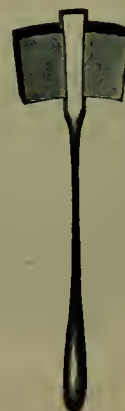
Live " Steel "

" " 24 00

## Bung Starters.

Per Dozen

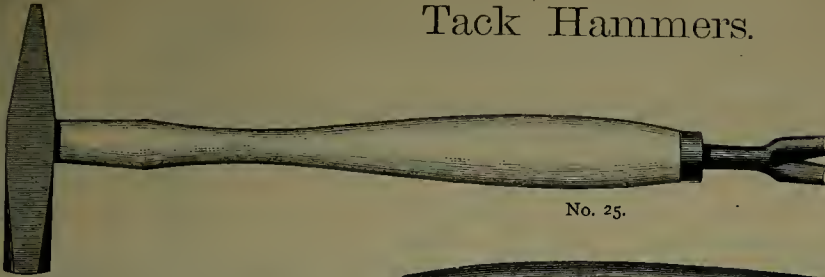
\$4 00



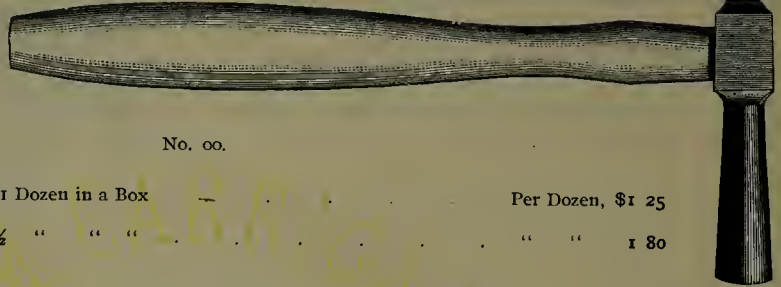
Bung Starter.



## Tack Hammers.



No. 25.



No. 00.

No. 25. Polished, with Claw, 1 Dozen in a Box

Per Dozen, \$1 25

No. 00. Japanned,

 $\frac{1}{2}$ 

"

"

"

"

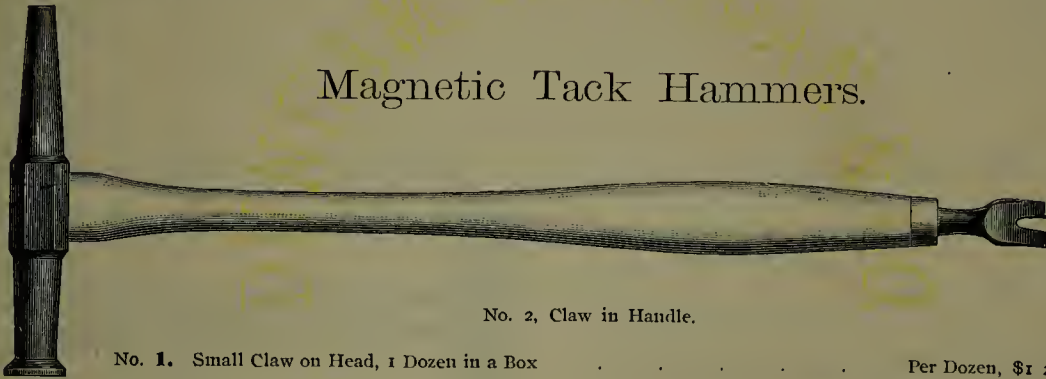
"

"

1

80

## Magnetic Tack Hammers.



No. 2, Claw in Handle.

No. 1. Small Claw on Head, 1 Dozen in a Box

Per Dozen, \$1 25

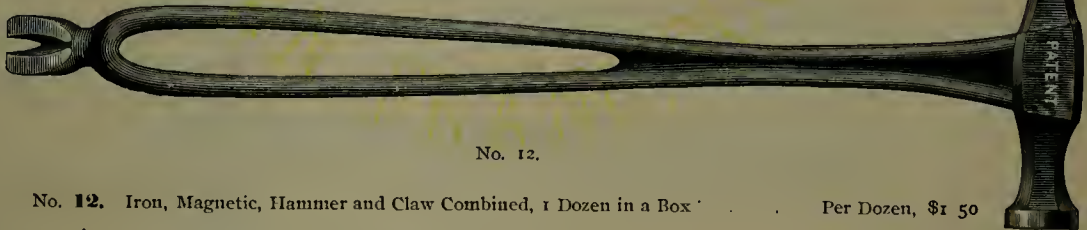
No. 2. Medium, Claw in Handle, 1 Dozen in a Box

"

"

1

50



No. 12.

No. 12. Iron, Magnetic, Hammer and Claw Combined, 1 Dozen in a Box

Per Dozen, \$1 50

## Patent Improved Tack Hammer.



No. 4.

No. 4. Malleable Iron, Inlaid with Black Walnut, Hardened Face, 1 Dozen in a Box . Per Dozen, \$2 50

## Upholsterers' Hammers.

STEEL.



Style of A.

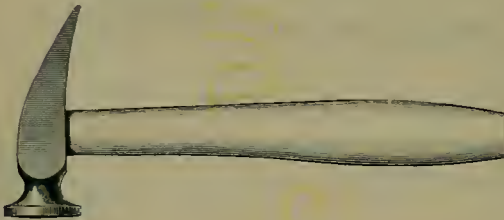


Style of D.

A—Plain Hammer	Per Dozen, \$6 00
B—Claw on the Top of Hammer	" " 7 00

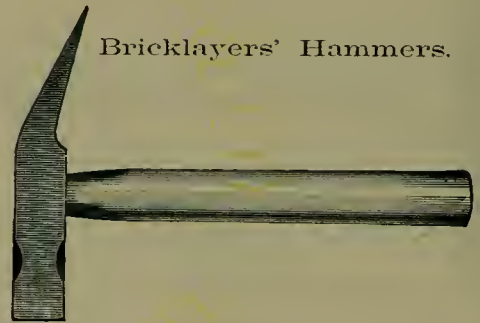
C—Claw on Side of Hammer	Per Dozen, \$ 9 00
D— " " End of Handle	" " 11 00

## Shoemakers' Hammers.



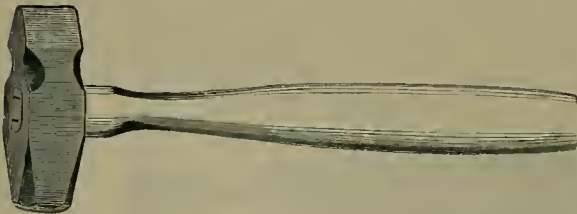
No. 1	Per Dozen, \$5 00
No. 2	" " 5 50

## Bricklayers' Hammers.



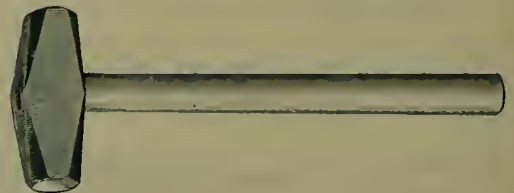
Cast Steel. Handled.	
Weight 2½ lbs	Per Dozen, \$15 00

## Coopers' Hammers.



All Cast Steel.

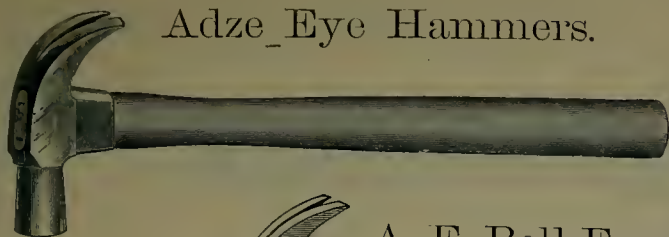
## Solid Cast Steel Drill Hammers.



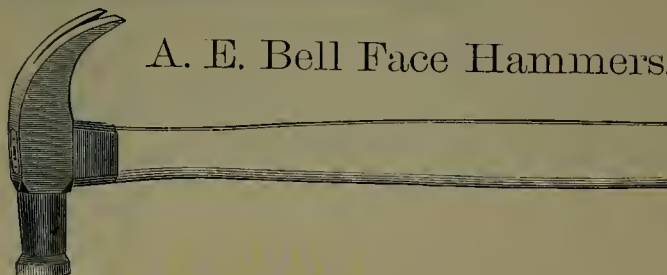
Oil Finished. Handled.

Weight, 3	3½	4	4½	5 lbs.
Each, \$1 25	1 50	1 75	1 90	2 00

Weight, 3	3½	4	4½	5 lbs.
Each, \$1 15	1 25	1 50	1 60	1 75



Adze Eye Hammers.



A. E. Bell Face Hammers.

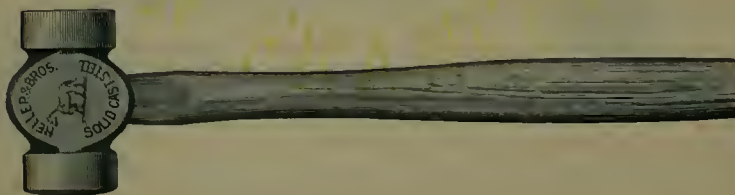
## Adze Eye Hammers.

	Nos. 1	1½	2	3
Weight, Each,	20	16	13	7½ oz
Maydole's, Per Dozen,	\$8 00	7 00	6 00	5 00
Yerkes & Plumb's, " "	9 50	8 50	7 50	...
Sunset, " "	7 00	6 50	6 00	...

## A. E. Bell Face Hammers.

	Nos. 11	11½	12	13
Weight, Each,	19	15	12	7 oz.
Maydole's, Per Dozen,	\$8 00	7 00	6 00	5 00
Yerkes & Plumb's, " "	9 50	8 50	7 50	...

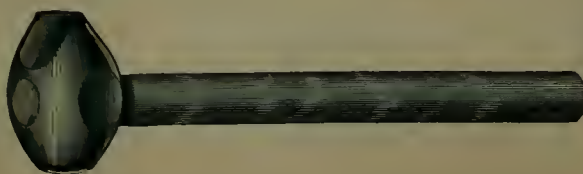
## "Heller Bros." Cast Steel Rounding Hammers.



One Size Only, Weight about 2¼ lbs

Each, \$2 00

## Farriers' Turning Hammers.

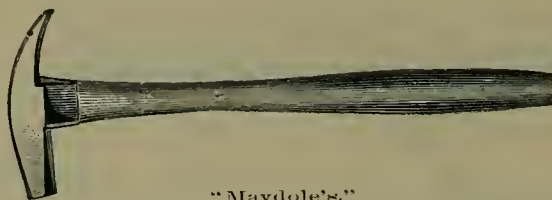


Solid Cast Steel

Each, \$3 00



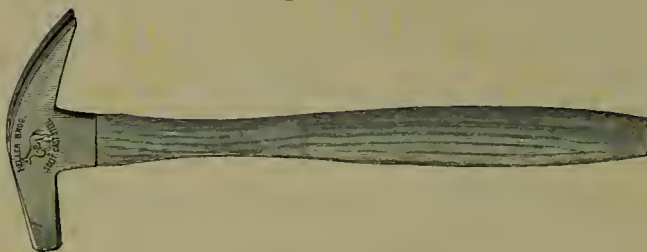
## Farriers' Hammers.



"Maydole's."

No. 51.	Adze Eye	Per Dozen, \$6 00
No. 52.	" "	" " 5 00
No. 55.	Plain	" " 3 50

## Driving Hammers.



"Heller Bros."

Per Dozen	\$10 00
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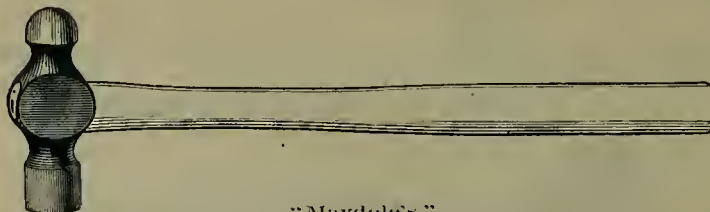
## Pick Pointing Hammers.



Cast Steel.

No. 2.	Weight 2 lb 1 oz.,	Per Dozen, \$15 00
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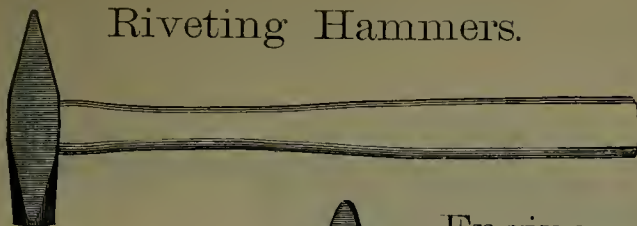
## Ball Pein Clipping Hammers.



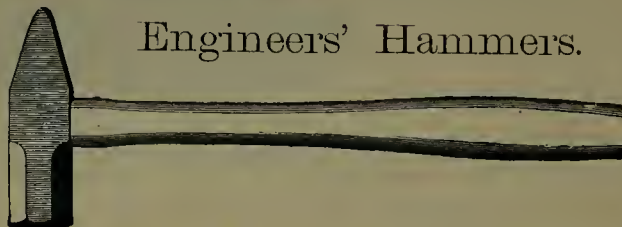
"Maydole's."

Nos.	77	76	75	74	73	72	71	70½	70
Weights, 7 oz.		10	12	16	20	24	30	2¼ lbs.	3 lbs.
Per Dozen, \$7 00		8 00	9 00	10 00	11 00	12 00	13 00	14 00	16 00

## Riveting Hammers.



## Engineers' Hammers.



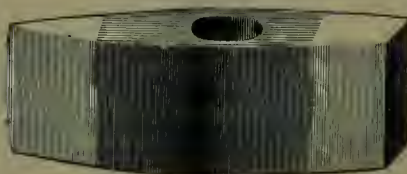
Riveting Hammers.

Nos.	0	1	2	3	4	5	6	7
Per Dozen, \$	3 50	4 00	4 50	5 00	5 50	6 00	7 00	8 00

Engineers' Hammers.

Nos.	0	1	2	2½	3	4
Per Dozen, \$	7 00	9 00	11 00	12 00	13 00	15 00

## Masons' Hammers.



Handled and Polished, Assorted Weights

Per Pound, \$0 40

## Rock Breaking or Napping Hammers.



Assorted, 3 to 12 lbs

Per Pound, \$0 35

## Top Mauls.



Y. &amp; P.'s Cast Steel

Per Pound, \$0 40

Horton's Ship

Each, 1 75

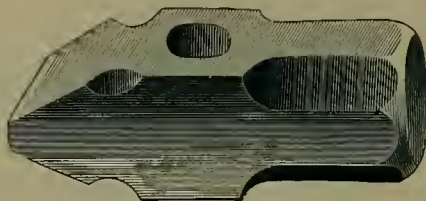
## Railroad Spiking Mauls.



Y. &amp; P.'s Cast Steel

Per Pound, \$0 30

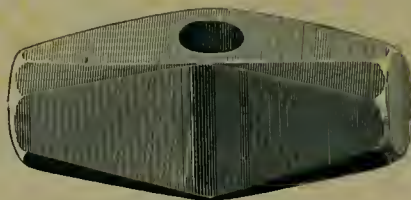
## Blacksmiths' Sledges.



All Weights

Per Pound, \$0 30

## Double Face Sledges.



Oil Finish, Unhandled, all Weights

Per Pound, \$0 30

Full Polished, Handled

Per Pound, \$0 45

## Steel Crow Bars.



Wedge Point.



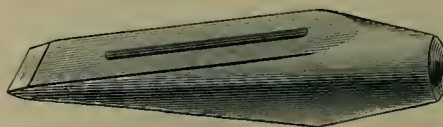
Pinch Point.

Assorted Weights, from 12 to 20 Pounds

Per Pound, \$0 12

We always send Wedge Point, unless otherwise ordered.

## "Sunset" Steel Wedges.



Sunset

Per Pound, \$0 20

Truckee

Per Pound, \$0 10



# Blacksmiths' Tools.

389

## Hot Chisels.



## Cold Chisels.



### Eye Chisels, Hot or Cold.

1 Inch . . . . . Each, \$1 00 | 1 1/4 Inch . . . . . Each, \$1 25

## Solid Cast Steel Round and Square Eye-Punches.

Inch, 1/2	3/4	1	1 1/4	1 1/2
Each, \$0 75	1 00	1 25	1 50	1 85

## Hardies.



## Flatters.



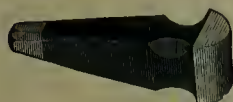
### Anvil Hardies.

Inch, 3/4	7/8	1	1 1/4	1 1/2
Each, \$0 75	0 90	1 00	1 25	1 50

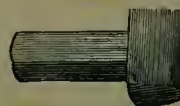
### Solid Cast Steel Flatters.

Inch, 2	2 1/2	3	3 1/2	4
Each, \$2 00	2 50	3 00	3 50	4 00

## Top Fullers.



## Bottom Fullers.



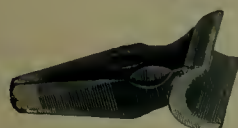
### Solid Cast Steel Top Fullers.

Inch, 1/4	1/2	3/4	1	1 1/4	1 1/2	2
Each, \$0 75	1 00	1 25	1 50	1 75	2 00	2 50

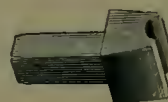
### Bottom Fullers.

Inch, 1/4	1/2	3/4	1	1 1/4	1 1/2	2
Each, \$0 75	0 75	0 75	1 00	1 25	1 50	1 75

## Top Swages.



## Bottom Swages.



### Solid Cast Steel Top Swages.

To Inch, 1/4	3/8	1/2	5/8	3/4	7/8	1	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	3
Each, \$1 25	1 50	1 50	1 50	1 75	1 75	2 00	2 25	2 50	2 75	3 00	3 50	4 00	5 00

### Solid Cast Steel Bottom Swages.

(When ordering give size of Hardy Hole.)

To Inch, 3/4	7/8	1	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3	3 1/2	4
Each, \$1 25	1 25	1 50	1 75	2 00	2 25	2 50	2 75	3 00	3 25	3 50	3 75	4 00

## Centre Punch.



Best Octagon Cast Steel

Per Dozen, \$2 00

## Prick Punch.



Best Octagon Cast Steel

Per Dozen, \$1 50

## Coopers' Punches.



Size Steel 1/2 Inch, Points 1/8 Inch to 1/4 Inch

Per Dozen, \$2 00

" " 5/8 " " 5/16 and 3/8 Inch

" Lb, 0 40

" " 3/4 " " 7/16 " 1/2 "

" " 0 40

Average Weight per Dozen, 5/8 Inch 7 lbs ; 3/4 Inch 11 lbs.

## Cast Steel Cold Chisels.

OCTAGON STEEL.



PUT UP IN PAPER BOXES.

All Warranted, and the Best Finished Goods in the Market.

	Size of Steel, 1/2	3/8	3/4	7/8	1 Inch.
Average Weight per Dozen, about	3 1/2	7	10	14	19 lbs.
Price					Per Pound, \$0 40

## Cape Chisels.

OCTAGON STEEL.



Size of Steel, 3/4 Oct. Width of Points, 1/4, 5/16 and 3/8 Inch. Average Weight per Dozen, 9 lbs.

Price

Per Pound, \$0 40

# "Witherby's" Chisels, Etc.

## Socket Firmer Chisels.



Inch,	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2
Per Dozen,	\$8 00	8 00	8 00	9 00	10 00	11 00	11 00	12 00	13 00	14 00	15 00	16 00

Assorted in Sets,  $\frac{1}{8}$  to 2 Inches, 12 Chisels

Per Set, \$11 25

## Corner Chisels.



Inch,	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$
Per Dozen,	\$22 00	28 00	30 00	32 00	34 00	36 00

## Socket Framing Chisels.



Inch, To $\frac{1}{2}$	$\frac{3}{8}$	$\frac{1}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2
Per Dozen, \$12 00	13 00	14 00	15 00	16 00	18 00	20 00	22 00	24 00

Assorted in Sets,  $\frac{1}{4}$  to 2 Inches, 11 Chisels (1 Each Size from  $\frac{1}{4}$  to 2 Inch Inclusive)

\$18 00

## Extra Socket Firmer Chisels.

These Tools are Tempered by an Improved Process, Insuring a Perfect Cutting Edge.



## CONDITIONS OF WARRANTY.

We warrant all goods bearing our trade mark to be perfect when they leave the shop, so far as the material and workmanship is concerned. If a tool proves too soft and bends on the edge or breaks in consequence of a flaw in the steel, and is returned to the person from whom it is bought within 30 days from date of purchase, a new tool will be given in exchange. If it is broken where the steel is sound, it will not be exchanged.

Price, No. 10 Set: 12 Chisels from  $\frac{1}{8}$  to 2 Inch, (sharpened and set ready for use) in Fancy Wooden Box \$6 25



# "Buck Bros." and "Barton's" Lists

FOR

## Socket Chisels.



### Firmer.

Size, Inch,	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$
Per Dozen,	\$4 30	4 60	5 00	5 50	6 00	6 40
Size, Inch,	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	
Per Dozen,	\$6 80	7 50	8 00	9 00	10 00	
Assorted to 2 Inch, 9 in a Set						\$5 25
" " 2 " 12 " "						6 00

### Long Paring.

Assorted to 2 Inch, 9 in a Set						Per Set, \$8 00
" " 2 " 12 " "						" " 9 50

### Millwrights'.

#### 8 INCH BLADES. HANDLED.

Size, Inch,	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$
Per Dozen,	\$9 00	9 50	10 00	10 50	11 00	11 50
Size, Inch,	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	
Per Dozen,	\$12 00	13 50	15 50	18 00	21 00	

Assorted to 2 Inch, 9 in a Set,						Per Set, \$10 00
" " 2 " 12 " "						" " 12 50

10 Inch Blades, add 20 per Cent.

## Socket Gouges.



GROUND ON THE INSIDE.

### Firmer.

Size, Inch,	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$
Per Dozen,	\$5 75	6 25	6 75	7 50	8 25	8 75
Size, Inch,	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	
Per Dozen,	\$9 25	10 25	11 25	12 25	13 50	
Assorted to 2 Inch, 9 in a Set						Per Set, \$7 25
" " 2 " 12 " "						" " 8 75

### Long Paring.

Assorted to 2 Inch, 9 in a Set						Per Set, \$8 75
" " 2 " 12 " "						" " 11 00

### Millwrights'.

#### 8 INCH BLADES. HANDLED.

Size, Inch,	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$
Per Dozen,	\$9 50	10 25	10 75	11 50	12 50	13 50
Size, Inch,	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	
Per Dozen,	\$14 50	15 50	17 00	19 00	22 50	

Assorted to 2 Inch, 9 in a Set						Per Set, \$11 00
" " 2 " 12 " "						" " 13 75

## Millwrights' Framing Chisels.



BLADE 14 INCHES LONG. HANDLED.

Size, Inch,	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2
Per Dozen,	\$9 00	9 50	10 00	10 50	11 00	12 00	13 00	15 00	16 50	18 00

## Socket Framing Chisels.



8 INCH BLADE. HANDLED.

Size, Inch,	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2
Per Dozen,	\$6 50	7 00	7 50	8 00	8 50	9 00	9 50	10 00	11 00	12 00

# "Buck Bros." Chisels and Gouges.

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## Firmer Chisels.



## Long Thin Paring Chisels.



Sizes, Inches,	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	Sets of 12
Firmer Chisels, Per Dozen,	\$1 60	1 75	2 10	2 25	2 45	2 80	3 00	4 10	5 10	6 20	7 50	Per Set, 3 50
Paring Chisels, " "	2 80	2 90	3 20	3 55	4 00	4 30	5 25	7 15	8 60	10 15	12 50	" " 5 80

## Firmer Gouges.



## Long Thin Paring Gouges.



Sizes, Inches,	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	Sets of 12
Firmer Gouges, Per Dozen,	\$2 00	2 15	2 45	2 65	2 90	3 30	3 50	4 85	6 00	7 30	9 00	Per Set, 4 10
Paring Gouges, " "	4 70	4 80	5 10	5 40	5 90	6 15	7 15	9 35	10 85	13 20	15 50	" " 8 00

## Turning Chisels—Extra.



## Turning Gouges—Extra.



Sizes, Inches,	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2
Chisels, Per Dozen,	\$3 00	3 20	3 45	3 75	4 10	4 50	5 10	6 20	7 70	9 20	10 70
Gouges, " "	3 70	4 00	4 40	4 70	5 35	6 00	6 70	8 45	10 80	12 55	15 20

## "Buck Bros." Beveled Edge Socket Firmer Chisels.



FURNISHED IN SETS ONLY.

Set of 9, Assorted, $\frac{1}{8}$ to 2 Inch	Per Set, \$7 00
" " 12, " $\frac{1}{8}$ " 2 "	" " 9 00

## "Horton & Arnold's" Ship Carpenters' Chisels and Gouges.

Socket Chisels.



Socket Gouges.



Size, Inch,	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	1 $\frac{3}{4}$	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	Size, Inch,	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	1 $\frac{3}{4}$	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$
Each, \$	1 00	1 15	1 25	1 30	1 50	2 00	2 60	3 00	Each, \$	1 25	1 30	1 40	1 50	1 75	2 25	2 75	3 00

## Carpenters' Slicks.



Oval Back Socket. Handled.

Inch,	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4
Per Dozen, \$	22 00	25 00	30 00	35 00



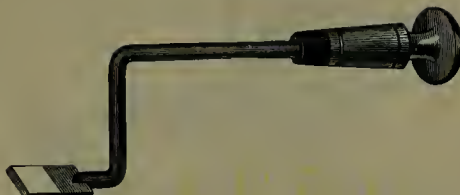
## Box Chisels.



Solid Cast Steel

Per Dozen, \$9 00

## Buttresses.

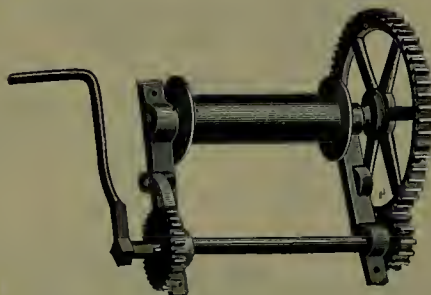


Cast Steel

Per Dozen, \$20 00

## Coopers' Tools.

## Iron Geared Windlass.



Weight 110 Pounds.

Is Beyond Doubt the Best Windlass in the Market.

THIS IMPROVED ALL IRON GEARED WINDLASS needs no word of praise as to its excelling all. Works easiest on heavy work; is saving on man, staves and rope; is right or left handed; can be placed in any desired position in shop. The same machine is also adaptable and extensively used by Butchers in slaughter houses, also in stores or warehouses for hoisting purposes, etc. Will raise 4 or 5 tons weight.

Price, with Crank . . . . . \$15 00

## Coopers' Socket Drivers.



Handled .

Each, \$1 25

## Coopers' Short and Oval Drivers.



Each

\$1 00

## Coopers' Nantucket Drivers.



Each

\$0 75

## Coopers' Hickory Drivers.

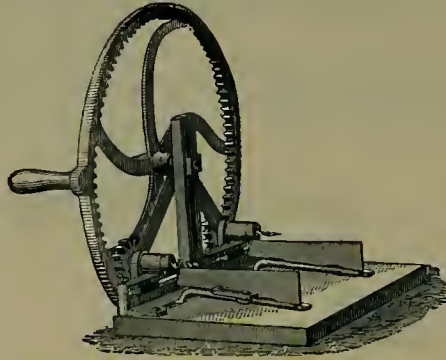


Each

\$0 25

## Coopers' Tools.

## Merchants' Patent Doweling Machine.

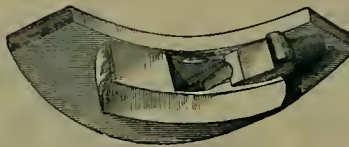


Each . . . . . \$6 50

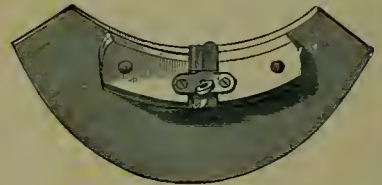
## V Howels.



## Tight Barrel Howels.



## Tight Barrel Crozes.



Beech . . . . . Each, \$1 25 | Each . . . . . \$1 75 | Each . . . . . \$1 25

## Coopers' Jointers.



Double Irons, 4 $\frac{1}{3}$  Feet . . . . . Each, \$2 50

## Coopers' Levelers.



## Coopers' Flagging Irons.



## Coopers' Vises.



Beech . . . . . Each, \$1 00 | Each . . . . . \$0 75 | Each . . . . . \$0 25

## Coopers' Beakhorns.



CAST STEEL FACE.

Per Pound . . . . . \$0 30

Coopers' Tools.

"Barton's" Coopers' Froes.



Inches,	10	12	14	16
Per Doz.,	\$15 00	18 00	21 00	24 00

Coopers' Scrapers.



Each	\$0 75
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"Barton's" Coopers' Shaves.

Stave Shaves.



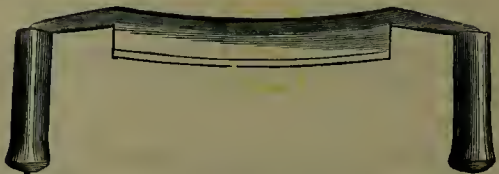
7 Inches	Each, \$1 25	8 Inches	Each, \$1 50
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Backing Shaves.



7 Inches	Each, \$1 25
8 "	" 1 50

Heading Shaves.



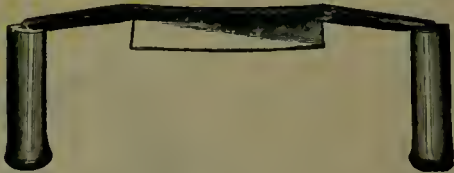
10 Inches <sup>1</sup>	Each, \$1 75
12 "	" 2 00

Hollowing Shaves.



7 Inches	Each, \$1 25
8 "	" 1 50

Hoop and Paring Shaves.



7 inches	Each, \$1 25
8 "	" 1 50



Coopers' Inshaves.

One Handle	Each, \$1 00
Two "	" 1 25

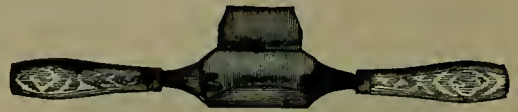




## Coopers' Spokeshaves.



Improved or Cleveland Pattern

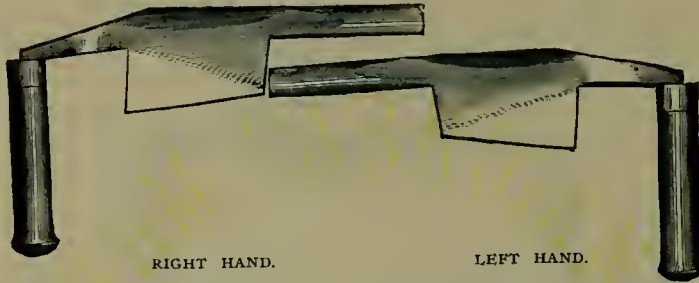


Each, \$1 50

Double Iron, Wood Handle

Each, \$1 50

## Coopers' Chamfer Knives.



RIGHT HAND.

LEFT HAND.

Blade, 4 Inch

Each, \$1 50

" 5 "

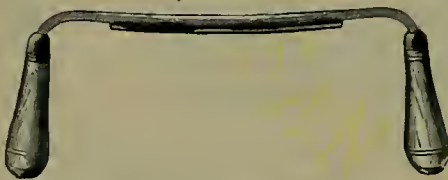
" 1 75

" 6 "

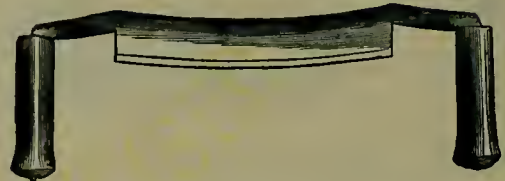
" 2 00

## "Barton's" Drawing Knives.

Narrow Carriage.



Shingling.



Carpenters'.



Carpenters'.

Inch,	6	7	8	9	10	11	12	13	14	16
Per Dozen,	\$10 00	11 00	12 00	13 00	14 00	15 00	16 00	17 00	18 00	20 00

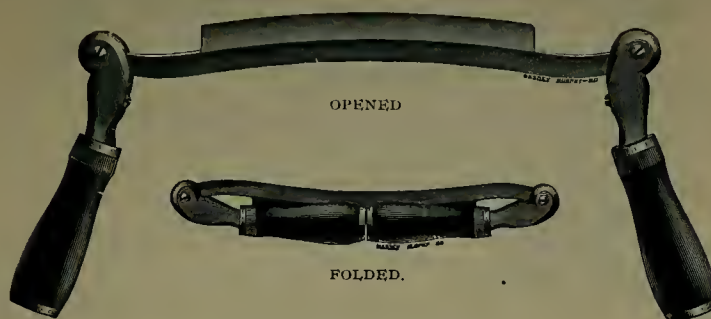
Narrow Carriage.

Inch,	6	7	8	9	10	12	14
Per Dozen,	\$11 00	12 00	13 00	14 00	15 00	17 00	19 00

Shingling Knives.

Inch,	10	12	14	16
Per Dozen,	\$16 00	18 00	20 00	22 00

# The Folding Handle Draw-Knife.



EVERY BLADE WARRANTED.

NUMBERS.	Length of Blade.	Width of Blade.	Size when Folded.	Per Dozen.
1	6 Inch.	1 1/8 Inch.	11 1/2 Inch x 2 Inch.	\$21 00
2	7 "	1 1/8 "	12 3/4 " x 2 "	22 50
3	8 "	1 1/8 "	14 " x 2 "	24 00

## Carpenters' Drawing Knives.

## Scroll Knives.

ADJUSTABLE HANDLES.



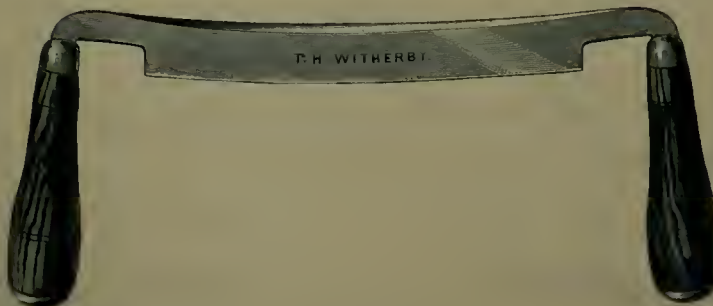
Narrow, Beveled on Both Sides.

Inch, 8  
Per Dozen, \$12 00

10  
15 00 | Inch, 8  
Per Dozen, \$12 00

10  
15 00

## "Witherby's" Drawing Knives.



No. 1.

Inch, 6  
Per Dozen, \$16 00

7  
17 00

8  
18 00

9  
19 00

10  
20 00

12  
22 00

13  
24 00

14  
25 00

15  
26 00

16  
28 00

## "Goodell's" Spokeshave.



The circular shape of this tool enables it to work in smaller circles than other Shaves.

The angle of the knife is such that it cuts instead of scraping the grain of the wood. Either handle can be removed to work in cramped places.

Price . . . . . Per Dozen, \$9 00

## "Bailey's" Iron Spokeshaves.

The Spokeshaves in the following List are superior in style, quality and finish to any in market. The Cutters are made of the best English Cast Steel, tempered and ground by an improved method, and are in perfect working order when sent from the factory.



No. 51. Double Iron, Raised Handle, 10 In.,  $2\frac{1}{8}$  In. Cutter.  
Per Dozen, \$3 50



No. 52. Double Iron, Straight Handle, 10 In.,  $2\frac{1}{8}$  In. Cutter.  
Per Dozen, \$3 50



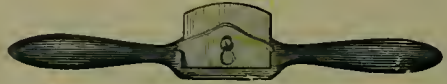
No. 53. Adjustable, Raised Handle, 10 In.,  $2\frac{1}{8}$  In. Cutter.  
Per Dozen, \$4 50



No. 54. Adjustable, Straight Handle, 10 In.,  $2\frac{1}{8}$  In. Cutter.  
Per Dozen, \$4 50

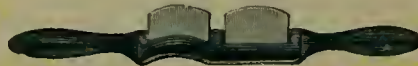


No. 55. Model Double Iron, Hollow Face, 10 In.,  $2\frac{1}{8}$  In. Cutter.  
Per Dozen, \$3 00



No. 58. Model Double Iron, 10 Inch,  $2\frac{1}{8}$  Inch Cutter.  
Per Dozen, \$3 00

No. 59. Single Iron (Pattern of No. 56), 10 In.,  $2\frac{1}{8}$  In. Cutter.  
Per Dozen, \$3 50



No. 60. Double Cutter, Hollow and Straight, 10 Inch,  $1\frac{1}{2}$  Inch Cutters . . . . . Per Dozen, \$4 50

## Patent Reversible Spokeshave.



This Spokeshave can be worked to and from the person using it without changing position.

No. 62. Raised Handle (Heavy), Double Cutter, 10 Inch,  $2\frac{1}{8}$  Inch Cutter . . . . . Per Dozen, \$6 00

## Wood Spokeshaves.



Size, Inch,	$2\frac{1}{2}$	3	$3\frac{1}{2}$
Beech, Plain, per Dozen,	\$3 25	3 75	4 25

## Screw-Iron Spokeshaves.

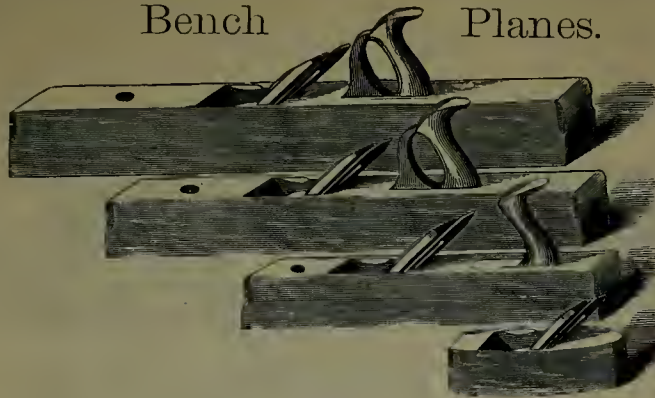


Size, Inch,	$2\frac{1}{2}$	3	$3\frac{1}{2}$
Beech, Plated, per Dozen,	\$9 10	9 50	10 00



# Bench Planes.

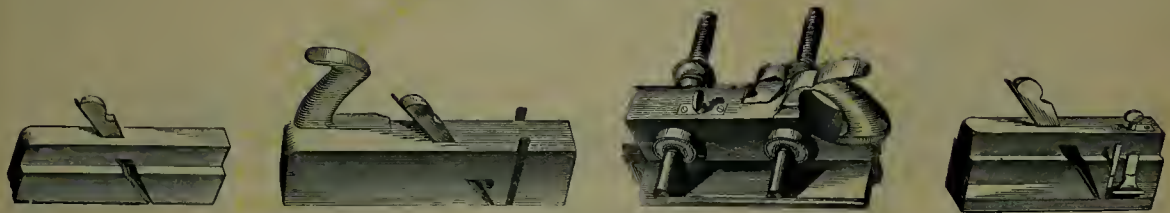
401



## AMERICAN IRONS.

Block	Each, \$0 75	Jointer, 26 In.	Each, \$1 50
Smooth	" 0 90	" 28 "	" 1 60
Jack	" 1 00	" 30 "	" 1 75
Fore	" 1 40		

## Fancy Planes.



Skew Rabbits.

Handled Rabbits, 2 Spurs.

Panel Plow.

Filletster



Handled Match.

Handled Match.

Match.

Match.



Dado.

Hollows and Rounds.

Bead.



A. Nosing Plane.



B. Quarter Round.



C. Quarter Round.

### Skew Rabbits.

Inch,	$\frac{1}{2}$	$\frac{3}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	1 $\frac{1}{8}$	1 $\frac{1}{4}$	1 $\frac{1}{2}$	1 $\frac{3}{4}$	2
Each,	\$0 60	0 60	0 60	0 60	0 60	0 65	0 65	0 70	0 80	0 90

### Handled Rabbits with 2 Spurs.

Inch,	2	2 $\frac{1}{4}$	2 $\frac{1}{2}$	2 $\frac{3}{4}$	3
Each,	\$1 80	1 90	2 00	2 25	2 50

**Tooth Plane, Cast Steel Iron** . . . Each, \$1 00

### Match Planes.

Handled,	$\frac{1}{2}$ , $\frac{3}{8}$ , $\frac{3}{4}$ , $\frac{7}{8}$ , 1 Inch	Per Pair, \$2 00
"	1 $\frac{1}{4}$ , 1 $\frac{1}{2}$ Inch	" " 2 25
Unhandled,	$\frac{1}{4}$ , $\frac{3}{8}$ , $\frac{1}{2}$ , $\frac{3}{4}$ , $\frac{7}{8}$ , 1 Inch	" " 1 25

### Dadoes.

Brass Screw Stop, all Sizes,  $\frac{1}{4}$  to 1 Inch . . . Each, \$1 50

### Bead Planes. Single.

To $\frac{1}{2}$ Inch	$\frac{3}{8}$ and $\frac{1}{4}$	$\frac{3}{8}$ and 1
\$0 50	0 55	0 70

### Centre Bead.

Advance 10 cents on each Size of Single Bead.

### Hollows and Rounds.

To No. 12	14 to 18	20 to 24	Sets of 9 Pairs
Per Pair, \$0 75	0 90	1 10	Per Set, \$7 20

### Filletsters.

Plain Side Stop . . . \$1 25 | Brass Side Stop . . . \$1 40

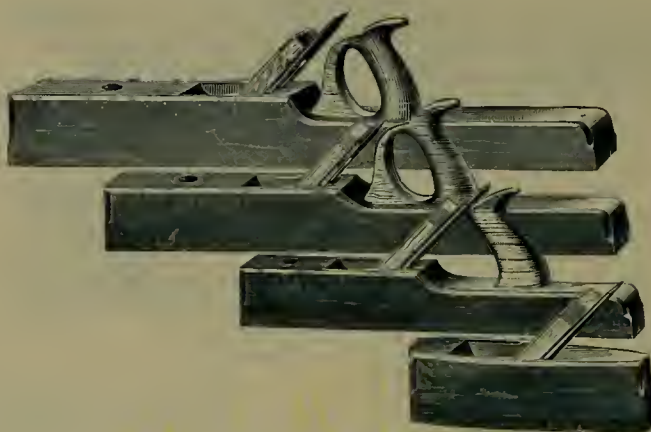
### Panel Plows.

No. 117. Beech Screw Stop, without Handle	Each, \$5 00
No. 119. " " " with " " "	5 50

A. Nosing Planes,  $\frac{1}{2}$  to  $\frac{3}{8}$  In. \$0 80  $\frac{3}{4}$  to  $\frac{7}{8}$  0 90 1 to 1  $\frac{1}{4}$  1 00

B. Quarter Round Planes,  $\frac{1}{4}$ ,  $\frac{3}{8}$  and 1 Inch Each, \$0 75  
C. " " " with Fence,  $\frac{1}{4}$  to 1 In. " 1 00

## Ship Planes.



"ANCHOR BRAND." AMERICAN IRONS.

Smooth	Each, \$1 00	Fore	Each, \$1 75
Jack	" 1 50	Jointer	" 2 00

## Single Cut Plane Irons.



## Double Plane Irons.



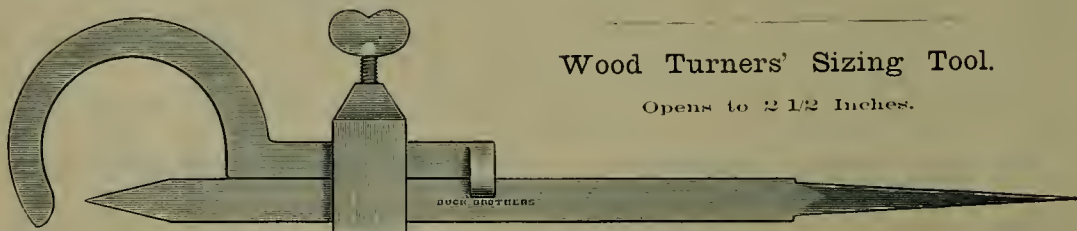
Sizes to Inch,	1 3/8	1 3/4	2	2 1/8	2 1/4	2 3/8	2 1/2	2 3/4	2 3/8	3
Single Irons, per Dozen,	\$3 19	3 28	3 75	3 94	4 50	4 97	5 25	5 91	6 57	8 25
Double " " "	\$6 09	6 28	6 94	7 22	7 97	8 72	9 28	10 13	10 97	13 78

## Irons for "Bailey's" Planes.

Sizes, Inch,	1 1/4	1 3/8	1 3/4	2	2 1/8	2 3/8	2 3/4
Single Irons, Each,	\$0 20	0 25	0 28	0 30	0 33	0 37	0 40
Double " " "	\$0 40	0 45	0 50	0 55	0 60	0 65	0 70

## Irons for "Steer's" Planes.

Sizes, Inch,	1 1/4	2	2 1/8	2 3/4	2 3/8
Each, \$0 30	0 33	0 38	0 40	0 45	



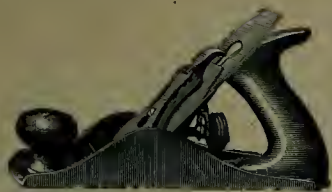
## Wood Turners' Sizing Tool.

Opens to 2 1/2 inches.

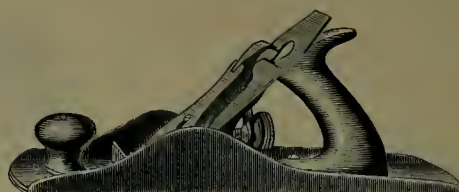
Price . . . . . Each, \$3 00

# "Bailey's" Adjustable Planes.

## Iron Planes.



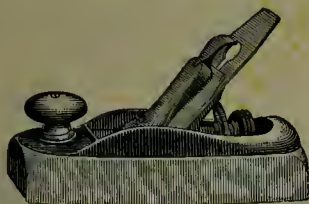
				Each.
No. 1.	Smooth Plane,	5½ In. in Length,	1¼ In. Cutter,	\$2 25
No. 2.	" "	7 " " "	1½ " "	2 75
No. 3.	" "	8 " " "	1¾ " "	3 00
No. 4.	" "	9 " " "	2 " "	3 25



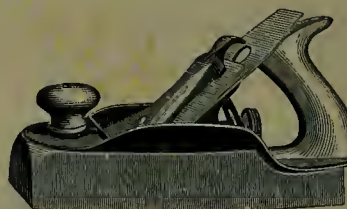
				Each.
No. 5.	Jack Plane,	14 In. in Length,	2 In. Cutter,	\$3 75
No. 6.	Fore " "	18 " " "	2¾ " "	4 75
No. 7.	Jointer " "	22 " " "	2¾ " "	5 50
No. 8.	" " "	24 " " "	2¾ " "	6 50

No. 10. Carriage Makers' Rabbit Plane, 14 In., 2½ In. Cutter. Each, \$4 50

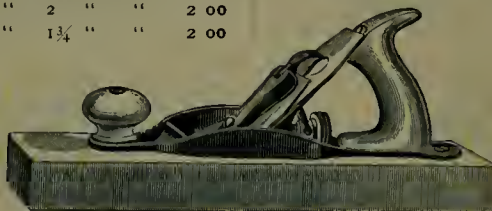
## Wood Bottom Planes.



				Each.
No. 21.	Smooth Plane,	7 In. in Length,	1¾ In. Cutter,	\$2 00
No. 22.	" "	8 " " "	1¾ " "	2 00
No. 23.	" "	9 " " "	1¾ " "	2 00
No. 24.	" "	8 " " "	2 " "	2 00
No. 25.	Block " "	9½ " " "	1¾ " "	2 00



				Each.*
No. 35.	Handle Smooth,	9 In. in Length,	2 In. Cutter,	\$2 50
No. 36.	" " "	10 " " "	2¾ " "	2 75
No. 37.	Jenny " "	13 " " "	2¾ " "	3 00



				Each.
No. 26.	Jack Plane,	15 In. in Length,	2 In. Cutter,	\$2 25
No. 27.	" "	15 " " "	2½ " "	2 50
No. 28.	Fore " "	18 " " "	2¾ " "	2 75
No. 29.	" "	20 " " "	2¾ " "	2 75

				Each.
No. 30.	Jointer Plane,	22 In. in Length,	2¾ In. Cutter,	\$3 00
No. 31.	" " "	24 " " "	2¾ " "	3 00
No. 32.	" " "	26 " " "	2¾ " "	3 25
No. 33.	" " "	28 " " "	2¾ " "	3 25
No. 34.	" " "	30 " " "	2¾ " "	3 50

## "Bailey's" Patent Adjustable Block Planes.

These Block Planes are adjusted by a Screw and Lever movement, and the mouth can be opened wide or made close, as the nature of the work to be done may require. The handles to Nos. 9¼ and 15½ are secured to the stock by the use of an iron nut, and can be easily attached to or liberated from the Plane, as the convenience of the workman may require.



No. 9½.	Excelsior Block Plane,	6 In. in Length,	1¼ In. Cutter.	Each, \$1 50
No. 15.	Excelsior Block Plane,	7 In. in Length,	1¼ In. Cutter.	Each, \$1 60



No. 9¼.	Excelsior Block Plane,	with Rosewood Handle,	6 In. in Length,	1¼ In. Cutter.	Each, \$1 75
No. 15½.	Excelsior Block Plane,	with Rosewood Handle,	7 In. in Length,	1¼ In. Cutter.	Each, \$1 85

Cast Steel Cutters for above Block Planes, \$0 25



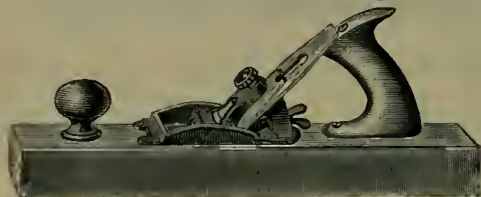
# "Stanley's" Improved Planes.

## Wood Bottom Planes.



No. 122. Smooth Plane, 8 In. in Length,  $1\frac{1}{4}$  In. Cutter

Each, \$1 50



Nos.

127. Jack Plane, 15 In. in Length,  $2\frac{1}{8}$  In. Cutter, \$2 00  
129. Fore Plane, 20 In. in Length,  $2\frac{1}{8}$  In. Cutter, 2 25

Each.

\$2 00

2 25

## Improved Rabbet Plane.



This plane will lie perfectly flat on either side, and can be used with right or left hand equally well, while planing into corners or up against perpendicular surfaces.

Nos.

180. Iron Stock 8 In. in Length,  $1\frac{1}{2}$  In. wide, \$1 00  
181. " " 8 " " "  $1\frac{1}{4}$  " " 1 00  
182. " " 8 " " " 1 " " 1 00  
190. " " 8 " " "  $1\frac{1}{2}$  " " with spur, 1 15  
191. " " 8 " " "  $1\frac{1}{4}$  " " " 1 15  
192. " " 8 " " " 1 " " " 1 15

Each.

\$1 00

1 00

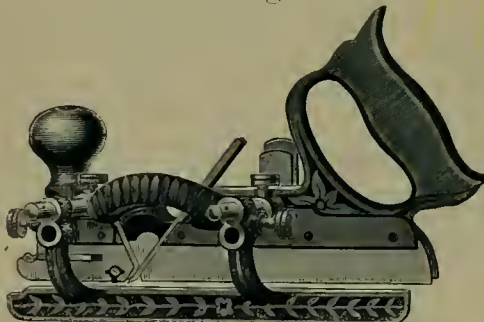
1 00

1 15

1 15

1 15

## Patent Adjustable Beading, Rabbet and Slitting Plane.

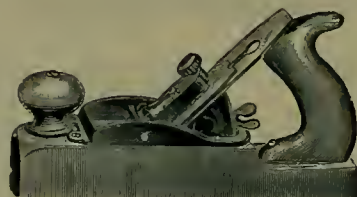


This Plane embraces in a compact and practical form (1) Beading and Center Beading Plane; (2) Rabbet and Filletster; (3) Dado; (4) Plow; (5) Matching Plane, and (6) a Superior Slitting Plane.

Each Plane is accompanied by seven Beading Tools ( $1/8$ ,  $3/16$ ,  $1/4$ ,  $5/16$ ,  $3/8$ ,  $7/16$  and  $1/2$  Inch), Nine Plow and Dado Bits ( $1/8$ ,  $3/16$ ,  $1/4$ ,  $5/16$ ,  $3/8$ ,  $7/16$ ,  $1/2$ ,  $5/8$  and  $7/8$  Inch), a Slitting Blade and a Tonguing Tool.

Price, Including Beading Tools, Bits, Slitting Blade, etc.  
No. 45. Iron Stock and Fence, \$8 00

No. 135. Handle Smooth, 10 In. in Length,  $2\frac{1}{8}$  In. Cutter.  
Each, \$2 00



## Duplex Rabbet Plane and Filletster.

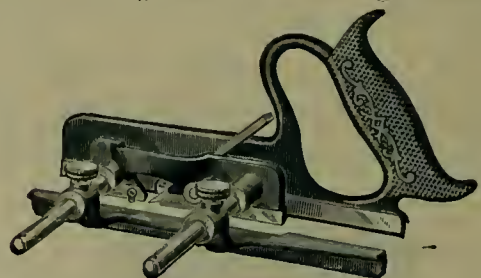


Remove the arm to which the fence is secured, and a Handled Rabbet Plane is had, and with two seats for the cutter, so that the tool can be used as a Bull-Nose Rabbet if required. The Plane will lie perfectly flat on either side, and can be used with right or left hand equally well, while planing into corners or up against perpendicular surfaces.

The arm to which the fence is secured can be screwed into either side of the stock, thus making a superior right or left hand Filletster with adjustable spur and depth gauge.

No. 78. Iron Stock and Fence,  $8\frac{1}{2}$  In. in Length,  $1\frac{1}{2}$  In. Cutter. Each, \$1 50

## Patent Adjustable Beading Plane.



This tool, for ordinary beading or for center beading, cannot be surpassed. By adjustment of the fence, center beading can be done up to the five inches from the edge of a board. Except for working across the grain, the spurs need not be used. Patent Adjustable Beading Plane, including Bits ( $1/8$ ,  $3/16$ ,  $1/4$ ,  $5/16$ ,  $3/8$ ,  $7/16$  and  $1/2$  Inch).

No. 50. Iron Stock and Fence, Each, \$4 00

# "Stanley's" Improved Planes.

405

## Iron Block Planes.



This Plane was first introduced as a convenient Tool for amateurs and others who work with scroll saws, picture framing, etc. It has proved so valuable to mechanics in all the lighter kinds of wood-working, and so useful about offices, stores and dwellings, for making slight repairs of windows, doors, furniture, etc., that it seems likely to be wanted in every household.

No. 101. Block Plane,  $3\frac{1}{2}$  In. in Length, 1 In. Cutter . . . . . Each, \$0 20



No. 102. Block Plane,  $5\frac{1}{2}$  In. in Length,  $1\frac{1}{4}$  In. Cutter.  
Each, \$0 40

No. 103. Adjustable Block Plane,  $5\frac{1}{2}$  Inches in Length,  
 $1\frac{1}{4}$  In. Cutter. Each, \$0 60



No. 110. Block Plane,  $7\frac{1}{2}$  In. in Length,  $1\frac{3}{4}$  In. Cutter.  
Each, \$0 60

No. 120. Adjustable Block Plane,  $7\frac{1}{2}$  Inches in Length,  
 $1\frac{3}{4}$  In. Cutter. Each, \$0 85



No. 130. Block Plane (Double-Edger), 8 In. in Length,  $1\frac{3}{4}$  In. Cutter . . . . . Each, \$0 80

## Patent Improved Rabbet Plane.

WITH STEEL CASE.



No. 80. Rabbet Plane, Skew, 9 In. in Length,  $1\frac{1}{2}$  In. Cutter.  
Each, \$1 10

No. 90. Rabbet Plane, Skew, 9 In. in Length, with Spur.  
Each, \$1 25

## Adjustable Chamfer Plane.



The front section of this Plane, to which the Cutter is attached, is movable up and down. It can be firmly secured to the rear section of the Plane at any desired point by means of a Thumb-Screw. Without the use of any other tool, this Plane will do perfect chamfer or stop-chamfer work of all ordinary widths.

When the two sections are clamped together so as to form an even base-line, the tool can be used as an ordinary bench plane.

No. 72. Iron Stock, 9 In. in Length,  $1\frac{3}{8}$  In. Cutter. Each, \$2 00

## Bull-Nose Rabbet Plane.



This will be found a very useful Tool by all wood-workers, enabling the owner to work close up into corners, where it is found necessary to do so. The mouth to this Plane can readily be made open or close, by means of the screw on the top which passes through a slot in the upper section of the stock.

No. 75. Iron Stock, 4 In. in Length, 1 In. Cutter, Each, \$0 50

## Patent Adjustable Circular Plane.



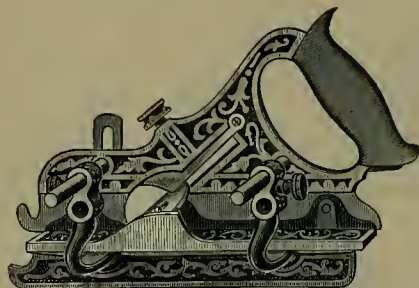
This Plane has a Flexible Steel Face, and by means of the thumb-screws at each end of the stock can be easily adapted to plane circular work—either concave or convex.

No. 113.  $1\frac{1}{2}$  In. Cutter . . . . . Each, \$4 00

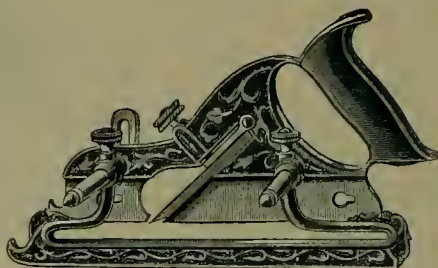


## "MILLER'S"

## Patent Combined Plow, Filletster and Matching Plane.



This Tool embraces, in a most ingenious and successful combination, the common Carpenter's Plow, an Adjustable Filletster and a perfect Matching Plane. The entire assortment can be kept in smaller space, or made more portable than an ordinary Carpenter's Plow.



The above engraving represents the Tool, adjusted for use as a Plow. With each Plow eight bits ( $\frac{1}{8}$ ,  $\frac{3}{16}$ ,  $\frac{1}{4}$ ,  $\frac{5}{16}$ ,  $\frac{3}{8}$ ,  $\frac{7}{10}$ ,  $\frac{1}{2}$  and  $\frac{5}{8}$  inch) are furnished; also a Tonguing Tool ( $\frac{1}{4}$  inch), and by use of the latter, together with the  $\frac{1}{4}$  inch Plow Bit for grooving, a perfect Matching Plane is made.



Each Plane is accompanied by a Slitting Tool, a Tongue Tool ( $\frac{1}{4}$  inch), a Filletster Cutter, and eight Plow Bits ( $\frac{1}{8}$ ,  $\frac{3}{16}$ ,  $\frac{1}{4}$ ,  $\frac{5}{16}$ ,  $\frac{3}{8}$ ,  $\frac{7}{10}$ ,  $\frac{1}{2}$  and  $\frac{5}{8}$  inches).

**Combined Plow, Filletster and Matching Plane.**  
Including Plow Bits, Slitting and Tonguing Tools.

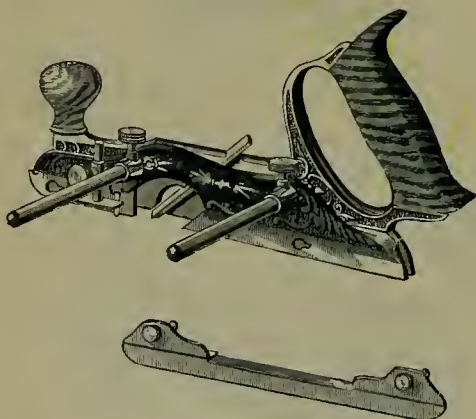
No. 41. Iron Stock and Fence . . . . . Each, \$ 9 00  
No. 42. Gun Metal Stock and Fence . . . . . " 12 00

**Combined Plow and Matching Plane.**  
Including Plow Bits, Slitting and Tonguing Tools.

No. 43. Iron Stock and Fence . . . . . Each, \$ 7 00  
No. 44. Gun Metal Stock and Fence . . . . . " 10 00

## "TRAUT'S"

## Patent Adjustable Dado, Filletster, Plow, Etc.



By attaching the Guard-plate, shown above, to the sliding section, the Tool may be readily converted into a Plow, a Filletster, or a Matching Plane—as explained in the printed instructions which go in every box.

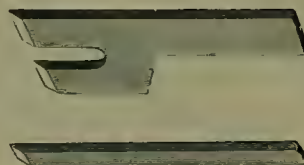
**Adjustable Dado, Filletster, Plow, Etc.**

Including Plow Bits, Tonguing and Grooving Tools.

No. 46. Iron Stock and Fence . . . . . Each, \$7 00

The Tool here represented consists of two sections: A main stock with two bars, or arms; and a sliding section, having its bottom, or face, level with that of the main stock.

It can be used as a Dado of any required width, by inserting the bit into the main stock, and bringing the sliding section up to the edge of the bit. The two spurs, one on each section of the Plane, will thus be brought exactly in front of the edges of the bit. The gage on the sliding section will regulate the depth to which the Tool will cut.



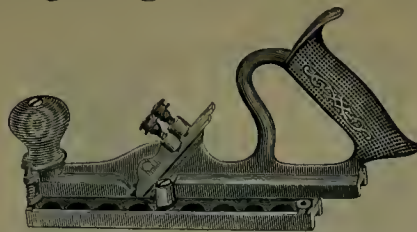
The Tool is accompanied by eight Plow Bits ( $\frac{3}{16}$ ,  $\frac{1}{4}$ ,  $\frac{5}{16}$ ,  $\frac{3}{8}$ ,  $\frac{1}{2}$ ,  $\frac{5}{8}$ ,  $\frac{7}{8}$  and  $1 \frac{1}{4}$  inch), a Filletster Cutter and a Tonguing Tool. All these bits are secured in the main stock on a skew.

**Adjustable Dado.**

Including Bits ( $\frac{3}{8}$ ,  $\frac{5}{8}$ ,  $\frac{7}{8}$ ,  $1 \frac{1}{4}$  Inch).

No. 47. Iron Stock and Fence . . . . . Each, \$4 00



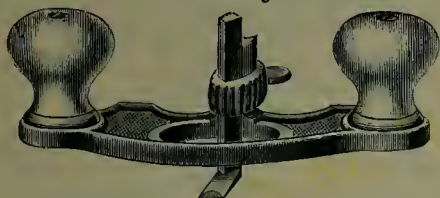


Two separate Tools, which are always used in connection with each other, are here combined in one; thus affording to the owner two superior Tools, in a cheap form, and occupying no more space in a chest or on a bench than one ordinary Tonguing or Grooving Tool.

No. 48. Iron Stock and Fence (including Tonguing and Grooving Tools)

Each, \$2 50

## Wood-workers' Handy Router Plane.



This Tool should be added to the kit of every skilled Carpenter, Cabinet Maker, Stair Builder, Pattern Maker or Wheelwright.

When in the form shown in the illustration it is perfectly adapted to smooth the bottom of grooves, panels, or all depressions below the general surface of any woodwork.

The Bits can also be clamped to the backside of the upright post, and outside of the stock. In this position they will plane into corners, or will smooth surfaces not easily reached with any other tool, as the form of the shank enables the Bit to work either parallel with the stock lengthwise, or at a right angle with it.

No. 71. Iron Stock, with Steel Bits ( $\frac{1}{4}$  and  $\frac{1}{2}$  In.) Each, \$1 50

## "Stanley's" Universal Hand Bader.



For Beading, Reeding, or Fluting, straight or irregular surfaces this tool is invaluable to wood-workers.

Six superior steel cutters go with each tool. Both ends are sharpened, thus embracing six ordinary sizes of Beads, four sets of Reeds and two Fluters.

The cutter is firmly clamped to the stock. A gauge with long straight bearing surfaces is used in ordinary work; and a gauge with oval bearing surfaces is used for curved or irregular forms of work.

Either gauge can be shifted from one side of the cutter to the other, without separating it from the stock, and can be rigidly set at any required distance from either side of the cutter.

No. 66. Iron Stock, with Six Steel Cutters . . . Each, \$1 00  
Extra Cutters or Blanks for same . . . " 0 05

## "Steer's" Improved Iron Planes.

ADJUSTABLE WOOD BOTTOM.



CUT SHOWING THE COMPOSITE BOTTOM.

PATENTED IMPROVEMENTS ARE:

1. A Composite Bottom, the bottom of the Plane being inlaid with Rosewood strips securely dove-tailed into the iron, so combined as to prevent the wood from wearing away, by which improvement one of the greatest objections to Iron Planes is avoided, viz.: the clinging of the Plane when in use to the work.

2. The Improved method of fastening the Cutter in the Plane, doing away with the heavy third iron used in some planes, and allowing the use of a HEAVIER CUTTING IRON, thereby avoiding all possibility of CHATTERING.

3. The Adjustable Mouth, which, in an entirely new way, may be made wide or narrow with great ease.

No. 303. Smooth Plane, 8 In. Long,  $1\frac{3}{4}$  In. Cutter, Each, \$3 00

No. 304. " " " " 2 " " " 3 25

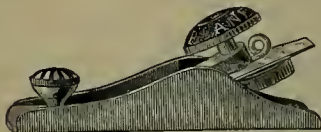
No. 305. Jack Plane, 14 In. Long,  $2\frac{1}{8}$  In. Cutter, Each, \$3 75

No. 306. Fore " 18 " "  $2\frac{1}{4}$  " " " 4 75

No. 307. Jointer, 22 In. Long,  $2\frac{3}{8}$  In. Cutter . . . Each, \$5 50

## “Victor” Iron Planes.

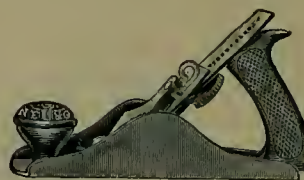
### Block Plane.



### Jack, Fore and Jointer Plane.



Smooth Plane.

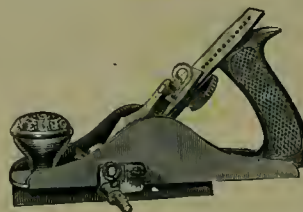


Nos.		Each.
1.	Block Plane, Adjustable Mouth and Cutter, 6 In. in Length, 1 $\frac{3}{4}$ In. Cutter, Polished Trimmings . . . . .	\$1 50
1 $\frac{3}{4}$ .	Block Plane, Adjustable Mouth and Cutter, 6 In. in Length, 1 $\frac{3}{4}$ In. Cutter, Nickel-Plated Trimmings . . . . .	1 75
3.	Smooth Plane, with Adjustment, 8 $\frac{1}{2}$ In. in Length, 1 $\frac{3}{4}$ In. Cutter, Polished Trimmings . . . . .	3 00
3 $\frac{1}{2}$ .	Smooth Plane, with Adjustment, 8 $\frac{1}{2}$ In. in Length, 1 $\frac{3}{4}$ In. Cutter, Nickel-Plated Trimmings . . . . .	3 75
4.	Smooth Plane, with Adjustment, 9 In. in Length, 2 In. Cutter, Polished Trimmings . . . . .	3 25
4 $\frac{1}{2}$ .	Smooth Plane, with Adjustment, 9 In. in Length, 2 In. Cutter, Nickel-Plated Trimmings . . . . .	4 00
5.	Jack Plane, with Adjustment, 14 In. in Length, 2 In. Cutter, Polished Trimmings . . . . .	3 75

Nos.		Each.
5½.	Jack Plane, with Adjustment, 14 In. in Length, 2 In. Cutter, Nickel-Plated Trimmings . . . . .	\$4 50
6.	Fore Plane, with Adjustment, 18 In. in Length, 2½ In. Cutter, Polished Trimmings . . . . .	4 75
6½.	Fore Plane, with Adjustment, 18 In. in Length, 2½ In. Cutter, Nickel-Plated Trimmings . . . . .	5 50
7.	Jointer Plane, with Adjustment, 22 In. in Length, 2½ In. Cutter, Polished Trimmings . . . . .	5 50
7½.	Jointer Plane, with Adjustment, 22 In. in Length, 2½ In. Cutter, Nickel-Plated Trimmings . . . . .	6 25
8.	Jointer Plane, with Adjustment, 24 In. in Length, 2½ In. Cutter, Polished Trimmings . . . . .	6 50
8½.	Jointer Plane, with Adjustment, 24 In. in Length, 2½ In. Cutter, Nickel-Plated Trimmings . . . . .	7 25

### Combined Smooth Rabbet and Filletster Plane.

The tool represented below consists of an Iron Smooth Plane, (same as our No. 4 Plane) and is so constructed that by means of the attachments which accompany it, it can also be used as a Rabbet Plane or a Filletster.



This view of the Tool shows the Cutter on one side to be flush with the head of the stock to the Plane, adapting it for use as a Rabbet Plane; also, there is shown in this view the depth gauge, spur in edge of stock, and the fence, all of which belong to the tool when used as a Filletster.

This view of the Tool shows the socket, which can be screwed on to the side of the stock, and through which a bar slides. The fence can thus be moved to any required distance from the edge of the stock, making an Adjustable Filletster of any desired width up to 2 inches.

No. <b>11.</b>	Combined Smooth, Rabbit and Filletster Plane,	9 In. Long,	2 In. Cutter,	Polished Trimmings	Each, \$5 00
No. <b>11½.</b>	“ “ “ “ “ “	9 “	2 “	Nickel-Plated Trimmings	“ 5 50

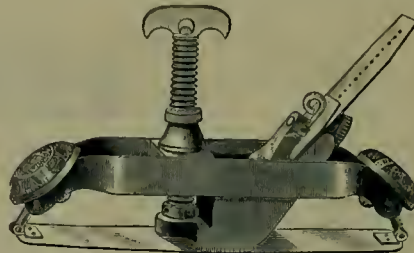
"L. Bailey's" Pocket Block Plane.



No. **12**. 4½ In. in Length, 1¼ In. Cutter, Japanned Finish,  
Polished Trimmings. Each, \$o 75

No. **12½**. 4½ In. in Length, 1¼ In. Cutter, Japanned Finish,  
Nickel-Plated Trimmings. Each, \$1 oo

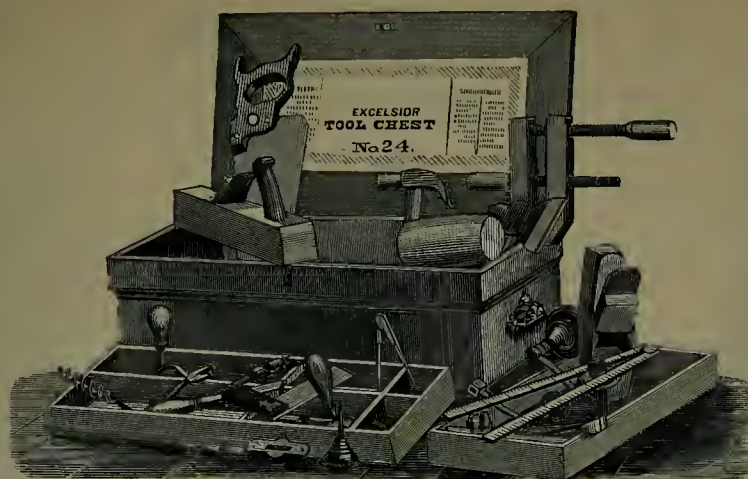
### Improved Adjustable Circular Plane.



Its smallest working capacity is 18½ inches outside circle and 12½ inches inside circle. Both ends of the face of the Plane are moved simultaneously and precisely alike, by means of one screw. The simplicity of its operation is unequalled.

No. 20. Circular Plane, 9½ In. in Length, 1¼ In. Cutter.  
Nickel-Plated Trimmings. Each, \$5 00





These Chests are all made from the best selections of young growth Chestnut, trimmed with heavy Black Walnut mouldings, with sliding Drawers and Tills, with fancy lifting Handles, Lock and Key, all complete. Tools all first-class.

## No. 20. Chest and Tools.

Price \$5 00

Size, 14 inches long, 6½ inches wide, and 5 inches deep.  
Contains 20 tools, as follows:

- |                          |                                  |
|--------------------------|----------------------------------|
| 1 Smoothing Plane,       | 1 Hand Saw,                      |
| 1 Claw Hammer,           | 1 Hatchet,                       |
| 1 Polished Mallet,       | 1 Marking Gauge,                 |
| 1 Try Square,            | 1 Screw Driver,                  |
| 2 Brad Awls (Handled),   | 2 Chisels and Handle,            |
| 1 Saw File and Handle,   | 1 Hickory Hand Screw,            |
| 1 Pair Flat Nose Pliers, | 1 Lead Pencil,                   |
| 2 Nail Gimlets,          | 1 Four Fold Rule, one foot long. |
| 1 Marking Awl,           |                                  |

## No. 22. Chest and Tools.

Price \$9 00

Size, 18 inches long, 8½ inches wide, and 6½ inches deep.  
Contains 33 tools, as follows:

- |                             |                                      |
|-----------------------------|--------------------------------------|
| 1 Smoothing Plane,          | 1 Hand Saw (Filed and Set),          |
| 1 Shingling Hatchet,        | 1 Hickory Mallet,                    |
| 1 Ball Brace,               | 2 Double Cut Bits,                   |
| 1 Four Fold Foot Rule,      | 1 Hickory Hand Screw,                |
| 1 Trying Square,            | 3 Firmer Chisels (Polished Handles), |
| 1 Cabinet File (Handled),   | 1 Marking Gauge,                     |
| 1 Claw Hammer,              | 1 Saw File (Handled),                |
| 1 Pair Flat Nose Pliers,    | 1 Screw Driver,                      |
| 2 Brad Awls (Handled),      | 1 Marking Awl (Handled),             |
| 1 Japanned Oil Can,         | 1 Lead Pencil,                       |
| 1 Hindoo Oil Stone,         | 1 Nail Punch,                        |
| 1 Pair Carpenter's Pincers, | 1 Pair Compasses,                    |
| 3 Nail Gimlets (Assorted),  | 1 Pocket Level.                      |
| 1 Screw Driver Bit,         |                                      |

## No. 24. Chest and Tools.

Price \$16 50

Size, 21 inches long, 10½ inches wide, and 8½ inches deep.  
Contains 60 tools, as follows:

- |                              |                                      |
|------------------------------|--------------------------------------|
| 1 Smoothing Plane,           | 1 Jack Plane,                        |
| 1 Hickory Mallet,            | 1 Shingling Hatchet,                 |
| 1 Marking Gauge,             | 1 Claw Hammer,                       |
| 1 Hand Saw (Filed and Set),  | 1 Ball Brace,                        |
| 1 Chalk Line Reel, with Awl, | 1 Saw File (Handled),                |
| 1 Lead Pencil,               | 1 Nail Punch,                        |
| 2 Brad Awls (Handled),       | 1 Pair Carpenter's Pincers,          |
| 1 Pocket Level,              | 1 Trying Square,                     |
| 1 Brad Awl Set (20 tools),   | 4 Firmer Chisels (Polished Handles), |
| 1 Two Foot Rule,             | 1 Japanned Oil Can,                  |
| 1 Hickory Hand Screw,        | 1 Screw Driver,                      |
| 1 Hindoo Oil Stone,          | 3 Nail Gimlets (Assorted),           |
| 1 Pair Compasses,            | 4 Brace Bits (Assorted),             |
| 1 Pair Flat Nosed Pliers,    | 1 Screw Driver Bit,                  |
| 1 Cabinet Drawing Knife,     | 1 Chalk Line,                        |
| 1 Marking Awl (Handled),     | 1 Plated Corkscrew.                  |
| 1 Bench Screw,               |                                      |

## No. 21. Chest and Tools.

Price \$7 00

Size, 16 inches long, 7½ inches wide, and 5½ inches deep.  
Contains 25 tools, as follows:

- |                             |                                      |
|-----------------------------|--------------------------------------|
| 1 Smoothing Plane,          | 1 Hand Saw (Filed and Set),          |
| 1 Shingling Hatchet,        | 1 Claw Hammer,                       |
| 1 Marking Gauge,            | 1 Hickory Mallet,                    |
| 1 Trying Square,            | 1 Screw Driver,                      |
| 2 Brad Awls (Handled),      | 1 Lead Pencil,                       |
| 1 Marking Awl (Handled),    | 2 Firmer Chisels (Polished Handles), |
| 1 Pair Flat Nose Pliers,    | 1 Cabinet File (Handled),            |
| 1 Saw File (Handled),       | 1 Hickory Hand Screw,                |
| 3 Nail Gimlets (Assorted),  | 1 Four Fold One Foot Rule,           |
| 1 Pair Carpenter's Pincers, | 1 Nail Punch.                        |
| 1 Chalk Line Reel,          |                                      |

## No. 23. Chest and Tools.

Price \$12 50

Size, 19½ inches long, 9½ inches wide, and 7½ inches deep.  
Contains 46 tools, as follows:

- |                                      |                          |
|--------------------------------------|--------------------------|
| 1 Hand Saw (Filed and Set),          | 1 Trying Square,         |
| 1 Pair Flat Nose Pliers,             | 1 Cabinet File,          |
| 4 Firmer Chisels (Polished Handles), | 1 Jack Plane,            |
| 1 Hickory Mallet,                    | 1 Ball Brace,            |
| 6 Brace Bits (Assorted),             | 1 Shingling Hatchet,     |
| 1 Claw Hammer,                       | 1 Nail Punch,            |
| 1 Hickory Hand Screw,                | 1 Chalk Line Reel,       |
| 1 Pair Carpenter's Pincers,          | 1 Hindoo Oil Stone,      |
| 1 Chalk Line,                        | 1 Marking Gauge,         |
| 1 Japanned Oil Can,                  | 1 Two Foot Rule,         |
| 2 Saw Files (Handled),               | 1 Pair Compasses,        |
| 2 Brad Awls (Handled),               | 1 Marking Awl (Handled), |
| 1 Lead Pencil,                       | 2 Sewing Awls (Handled), |
| 3 Nail Gimlets (Assorted),           | 1 Screw Driver,          |
| 1 Plated Cork Screw,                 | 1 Pocket Level,          |
| 1 Cabinet Drawing Knife,             | 1 Screw Driver Bit.      |
| 1 Bench Screw,                       |                          |

## No. 25. Chest and Tools.

Price \$24 00

Size, 25 inches long, 12½ inches wide, and 9½ inches deep.  
Contains 70 tools, as follows:

- |                              |                                      |
|------------------------------|--------------------------------------|
| 1 Hand Saw (Filed and Set),  | 1 Two Foot Rule,                     |
| 1 Panel Saw (Filed and Set), | 1 Half Inch Auger Bit,               |
| 1 Smoothing Plane,           | 1 Shingling Hatchet,                 |
| 1 Hickory Hand Screw,        | 1 Ball Brace,                        |
| 3 Nail Gimlets (Assorted),   | 1 Pair Compasses,                    |
| 1 Trying Square,             | 1 Saw File (Handled),                |
| 1 Lead Pencil,               | 6 Firmer Chisels (Polished Handles), |
| 1 Two Foot Iron Square,      | 1 Hickory Mallet,                    |
| 1 Brad Awl Set (20 tools),   | 4 Brace Bits (Assorted),             |
| 1 Claw Hammer,               | 1 Nail Punch,                        |
| 1 Marking Gauge,             | 1 Six Inch Screw Driver,             |
| 1 Pair Flat Nose Pliers,     | 1 Japanned Oil Can,                  |
| 1 Hindoo Oil Stone,          | 1 Pair Carpenter's Pincers,          |
| 1 Chalk Line Reel, with Awl, | 1 Screw Driver Bit,                  |
| 1 Eight Inch Screw Driver,   | 1 Wood Rasp (Handled),               |
| 1 Cabinet File (Handled),    | 2 Sewing Awls (Handled),             |
| 2 Brad Awls (Handled),       | 1 Chalk Line,                        |
| 1 Pocket Level,              | 1 Cabinet Drawing Knife,             |
| 1 Marking Awl (Handled),     | 1 Bench Screw.                       |
| 1 Plated Corkscrew,          |                                      |



# "Sunset" Hatchets.



SHINGLING.



CLAW.



BROAD.



LATHING.



HALF-HATCHET.

## "SUNSET" BRAND HATCHETS.

### Broad.

Nos.	1	2	3	4	5	6	7	8
Width of Cut, Inch,	4	4½	5	5½	6	6½	7	7½
Per Dozen, \$	10 50	11 50	13 00	14 50	16 50	18 00	19 50	22 00

### Shingling.

Nos.	1	2	3
Per Dozen, \$	8 00	8 50	9 00

### Lathing.

Nos.	1	2	3
Per Dozen, \$	8 00	8 50	9 00

### Claw.

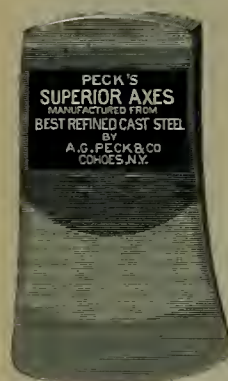
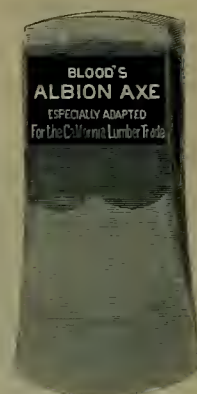
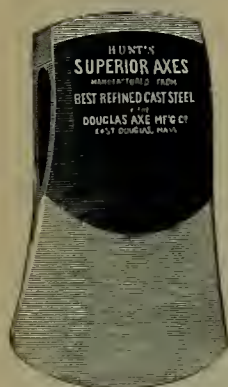
Nos.	1	2	3
Per Dozen, \$	9 00	9 50	10 00

### Half-Hatchet.

Nos.	1	2	3
Per Dozen, \$	8 00	8 50	9 00



## Axes.



## Handled Axes.



WEIGHT.	CLEAN CUT.	SUNSET OHIO.	POWELL TOOL CO.	PECK'S OHIO.	PECK'S SUPERB.
3 to 4½	\$12 00	13 00	15 50	15 50	16 50
4 to 5 4½ to 5½	\$12 50	13 50	16 00	16 00	17 00
4½ to 6	\$13 00	14 00	16 50	16 50	17 50

"HUNT'S," SAME LIST PRICE AS "PECK'S" SUPERB.



## Unhandled Axes.

WEIGHTS		Sunset.	Albion.	Eureka.	Hunt's.
3 to 4, and 3½ to 4½	Per Dozen,	\$10 50	11 50	11 75	11 50

## "Peck's" Double Bitted Axes.

California, Falling and Swamping Patterns.

All Steel, Half Polished

Per Dozen, \$18 00

" " Full " "

" " 20 00



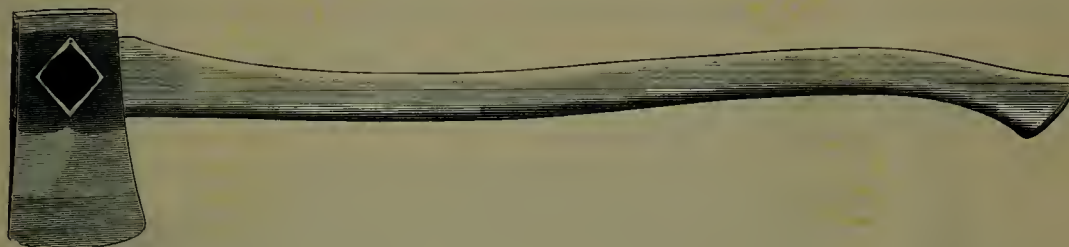
## Firemen's Handled Axes.



Finished in Red

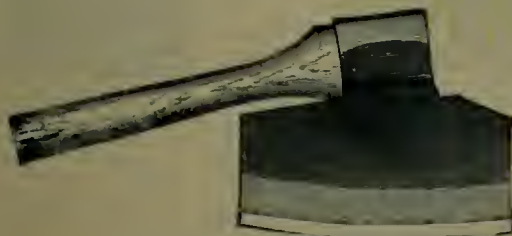
Per Dozen, \$34 00

## Boys' and Freighters' Axes.



<b>Boys' Axes,</b>	"Sunset,"	Weight 2 lbs,	28 Inch Handle		Per Dozen, \$10 00
"	"	"Hunt's,"	" 2 " 28 "	"	" " 13 50
<b>Freighters' "</b>	"Sunset,"	" 3 " 30 "	"	"	" " 12 00

## Coopers' Axes and Adzes.



AXE.



ADZE.

## Coopers' Axes.

Barton's, No. 1,	Width of Cut 10 Inches	Per Dozen, \$36 00
" " 2,	" " 8 1/2 "	" " 30 00

## Coopers' Adzes.

Barton's, No. 1,	Bolted Handle, Weight 4 lbs	Each, \$2 75
" " 2,	" " 3 "	" " 2 50

## Adzes.



SHIP ADZE.



HOUSE.



MILLWRIGHTS'.

"Peck's" or "Hunt's."

"Barton's."

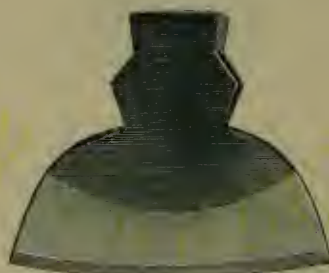
"Horton's."

Ship Adze	Per Dozen, \$25 00	Millwrights' Half Head Adze, per Dozen, \$24 00	Ship Adze	Per Dozen, \$33 00
House "	" " 24 00	Ship Adze	" " 30 00	Lipped " " 36 00

## Broad Axes.



HUNT'S, SHIP.



"WESTERN PATTERN."



HORTON'S, SHIP.

## Ship Broad Axes.

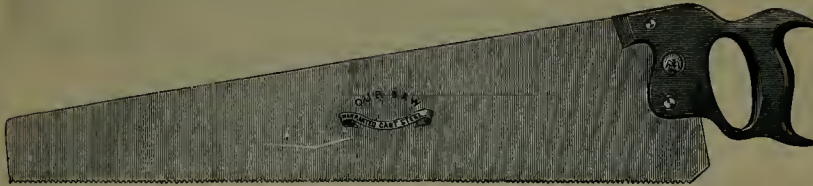
Horton's, Usual Weight	Per Dozen, \$45 00
Barton's, " "	" " 36 00
Hunt's, " "	" " 30 00

## "Western Pattern" Broad Axes.

Peck's or Hunt's, Weight 5 to 7 1/2 lbs.	Per Dozen, \$12 00
" " " " 8 " 9 "	" " 35 00

# “Our” Saw.

WARRANTED CAST STEEL.



Beech Handle, Polished Edge, with 3 Screws, set and Sharpened.

Inch,	12	14	16	18	20	22	24	26
Per Dozen, \$4 50		5 00	5 50	6 00	6 50	7 00	7 50	8 00

# “Disston’s” Saws, No. 7.



Cast Steel, warranted, Beech Handle, Polished Edge, 4 Improved Screws, Grained Blade.

Inch,	14	16	18	20	22	24	26	28
Per Dozen, \$12 00		13 00	14 00	16 00	18 00	19 00	20 00	23 50

# “Disston’s” Saws, No. 9.



Extra London Spring Steel, warranted, Apple Handle, Polished Edge, 4 Improved Screws, Grained Blade.

Inch,	16	18	20	22	24	26	28
Per Dozen, 15 50		17 00	19 00	21 00	23 00	24 00	28 00



## "Disston's" Saws, No. 12.



EXTRA REFINED LONDON SPRING STEEL, Selected and highly Polished Blade, Handle Carved and Polished, 4 Improved Brass Screws, the finest Hand Saw manufactured.

Inches,	16	18	20	22	24	26	28
Per Dozen, \$	20 00	22 00	24 00	26 00	28 00	30 00	34 00

## "Disston's" Skew-Back Saws.

# D

HAND SAW.



It combines the popular "Skew-Back," the peculiar shaped butt or heel, which, with the new Screws, makes it almost impossible to work loose from the handle, and gives the full sweep of the saw without the possibility of catching in the work.

All the above features are patented.

Inches,	16	18	20	22	24	26	28
Per Dozen, \$	14 50	16 00	17 50	19 50	21 00	22 00	25 00

## "Enterprise" Combination Saw.

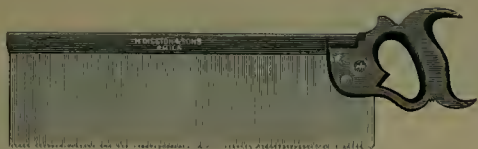


Beech Handle, Polished Edge, 3 Plain Screws, Set and Sharpened. 24 Inch, Etched Rule.

Saw, 26 Inch

Per Dozen, \$9 00

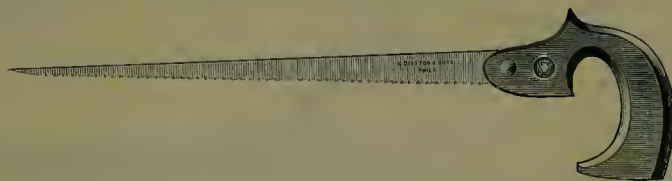
## "Disston & Sons" Cast Steel Back Saws.



No. 4. APPLE WOOD HANDLES.

Size, Inch,	8	10	12	14	16	18	20	22	24
Per Dozen, \$	13 00	14 00	16 00	18 00	20 00	22 00	24 00	26 00	28 00

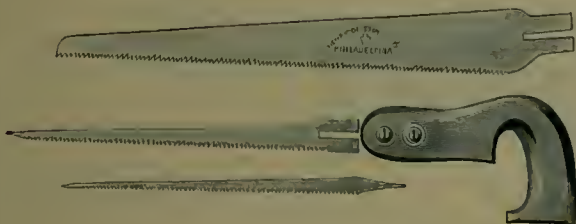
## Cast Steel Compass Saws.



No. 2. APPLE WOOD HANDLES.

Size, Incl,	10	21	14	16	18
Per Dozen, \$	4 25	4 50	4 75	5 00	5 25

## Next of Saws.



Sets Complete, combining a Key Hole, Compass and Pruning Saw, with Handle (sets)	Per Dozen, \$	12 00
Key Hole Blades Only	" "	1 50
Compass " "	" "	3 00
Pruning " "	" "	5 00
Handles and Screws	" "	2 50

THREE SETS IN A BOX.

## Key Hole Saw and Pad.



Saw Complete	Per Dozen, \$	2 50	Blades Only	Per Dozen, \$	1 50
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## Saw Pads.



Beech Handle, Steel Screws

Per Dozen, \$4 00

## Pruning Saws.

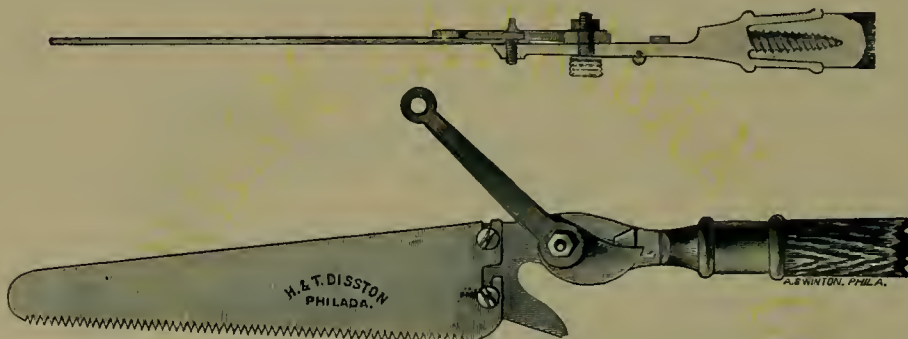
CALIFORNIA.



California Draw Cut Pruner

Per Dozen, \$7 00

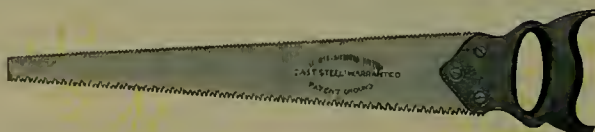
## "Little Giant" Pruning Hook and Saw.



Hook and Saw

Per Dozen, \$18 00

## Reversible Pruner.



16 Inch

Per Dozen, \$12 00

18 Inch

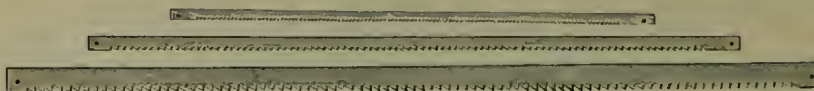
Per Dozen, \$13 00

## "Brown's" Pruning Saws.



Size, Inch,	12	14	16	18	20	22
No. 3. Per Dozen, \$	5 50	6 00	6 75	7 50	8 50	9 50

## Felloe Webs.

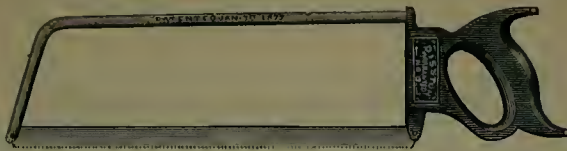


## STANDARD GAUGES. ASSORTED WIDTHS.

Size, Inch,	10	12	14	16	18	20	22	24	26	28	30	32	34	36
Per Dozen, \$	1 60	1 85	2 10	2 35	2 70	3 00	3 30	3 65	4 00	4 40	4 80	5 20	5 60	6 00



## No. 0. Kitchen Saws.



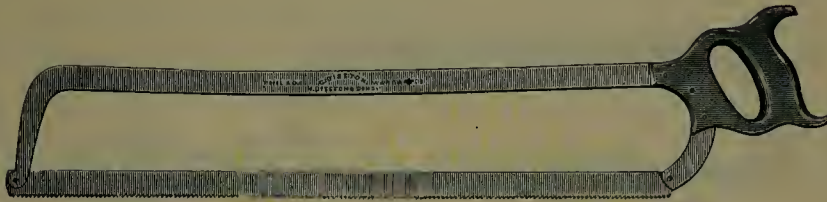
Size, 14 Inch

Per Dozen, \$7 50

Size, 16 Inch

Per Dozen, \$8 00

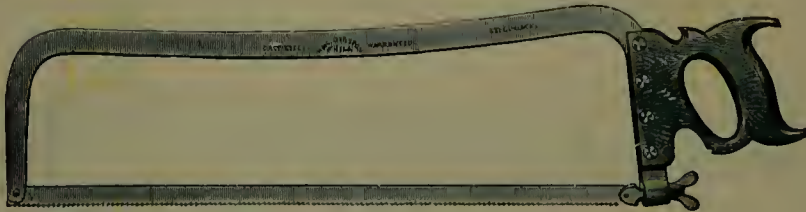
## Butcher Bow Saws.



## No. 2. Flat Back.

Inches, 14	16	18	20	22	24
Per Dozen, \$11 75	12 50	13 25	14 00	14 75	15 50

## "Henry Disston &amp; Sons" Butchers' Bow Back Saws.



## No. 5. California Flat Steel Back, Clock Spring Blued Blade.

Inches, 18	20	22	24
Per Dozen, \$28 00	29 00	30 00	31 00



## No. 6. California Oval Steel Back.

Inches, 16	18	20	22	24
Per Dozen, \$20 00	21 00	22 00	23 00	24 00

## Butcher Saw Blades.

Size, 24 Inch, Clock Spring Blued Blades

Per Dozen, \$7 00

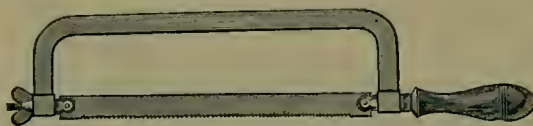
## Cast Steel Saw Knives.



Price

Per Dozen, \$5 25

## American Hack Saws.

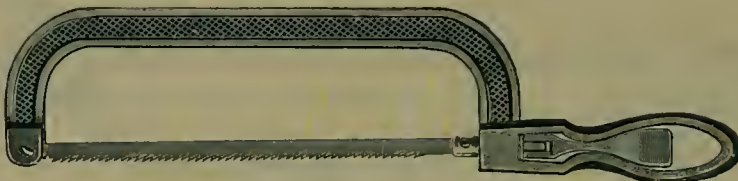


Hack Saws, with Stubbs' Blades, Complete.

Stubbs' Hack Saw Blades.

Inches,	8	10	12	14	Inches,	8	10	12	14	16
Per Dozen, \$18 00		21 00	24 00	27 00	Per Dozen, \$3 00		4 50	6 00	7 00	9 00

## "Griffin's" Hack Saw.



One Dozen Blades With Each Frame.

Size, 9 Inch Blade, Complete with Frame

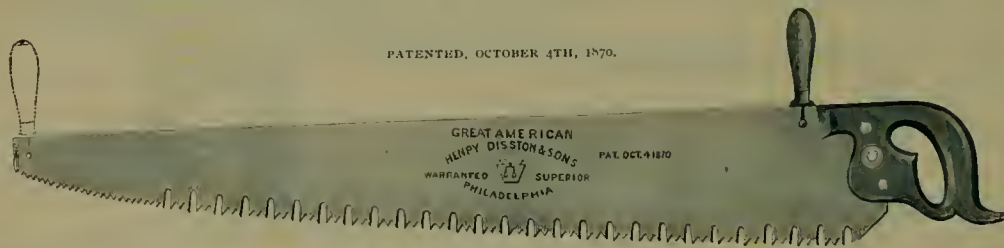
Per Dozen, \$18 00

Extra Blades

Per Dozen, \$0 75

## "Disston's" Great American One Man Saw.

PATENTED, OCTOBER 4TH, 1870.



Size, Feet, 3  
Each, \$2 75

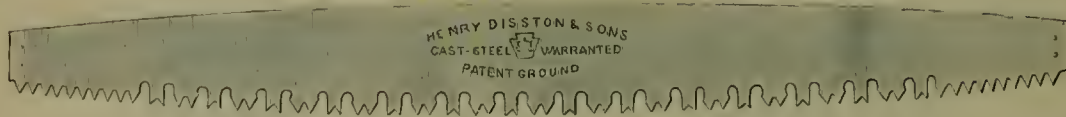
3½  
3 00

4  
3 50

4½  
4 00

5  
4 50

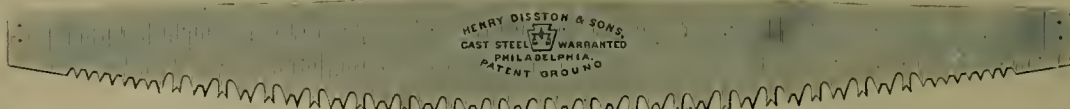
TUTTLE TOOTH.



Price

Per Foot, \$0 60

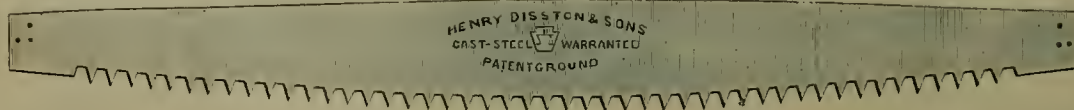
CHAMPION TOOTH, No. 2.



Price

Per Foot, \$0 60

PLAIN TOOTH.



Price

Per Foot, \$0 60

# "Disston & Sons" Warranted Extra Tempered Pit Saws.



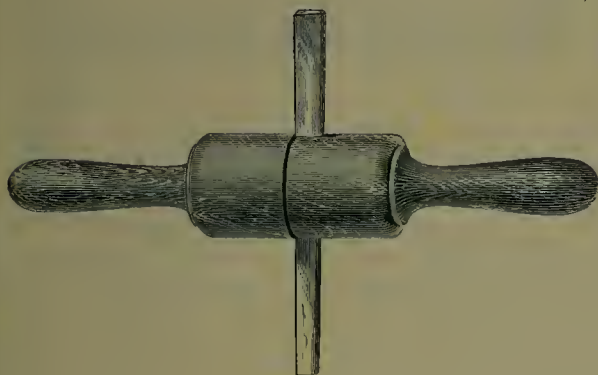
Size, Feet, 6  
Each, \$6 00

6½  
6 50

7  
7 00

## Tillers and Boxes for Pit Saws, Complete.

Price, \$2 50



Box for Pit Saw

Each, \$1 00

Tiller

Each, \$1 50

## Patent Ground and Tempered Cast Steel Wood Saw Blades.

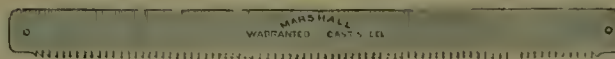
JACKSON.



No. 4. Set and Sharpened, 30 Inches

Per Dozen, \$2 75

MARSHALL.



No. 3. Set and Sharpened, 30 Inches

Per Dozen, \$3 75

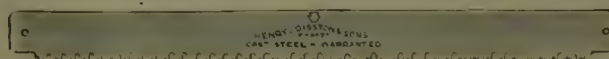
DISSTON & SONS' CAST STEEL.



No. 6. Set and Sharpened, 30 Inches

Per Dozen, \$6 00

DISSTON'S IMPROVED WOOD SAW BLADES.



No. 77. Set and Sharpened, 30 Inches, the Fastest Cutting Wood Saw in the Market

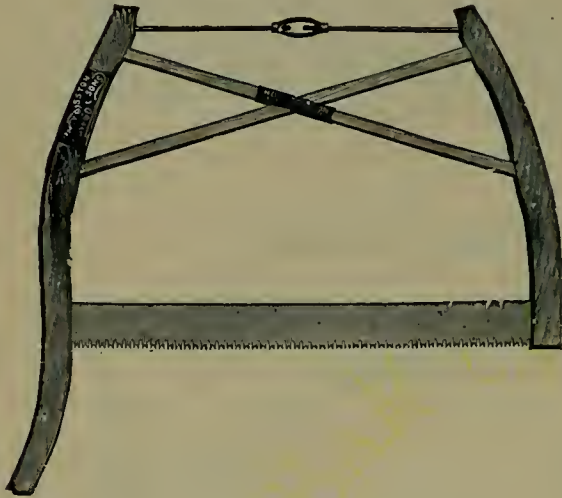
Per Dozen, \$6 50



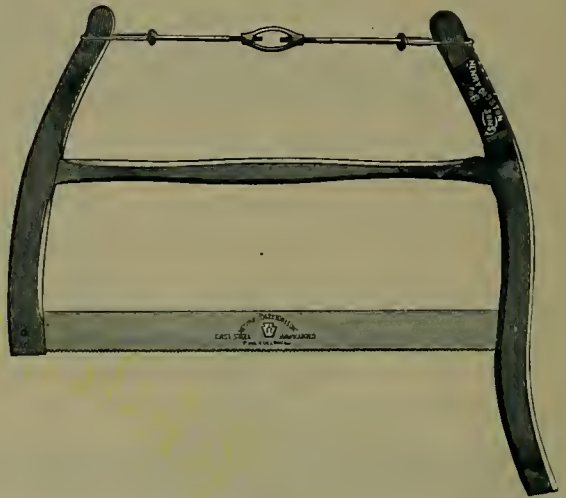
# "Disston & Sons" Wood Saws.

CLIMAX FRAME, No. 60.

Patented Feb. 21, 1871.



DISSTON &amp; SONS' No. 6.



No. 60. Framed Complete.

With No. 77 Blade	Per Dozen, \$10 00
" " 6 "	" " 9 50

No. 6. Framed Complete.

With No. 6 Blade	Per Dozen, \$9 00
" " 4 "	" " 6 00
" " 3 "	" " 7 00

THESE ARE PUT UP IN HALF-DOZEN BUNDLES OR BOXES.

## "Eclectic" No. 40 Wood Saw.

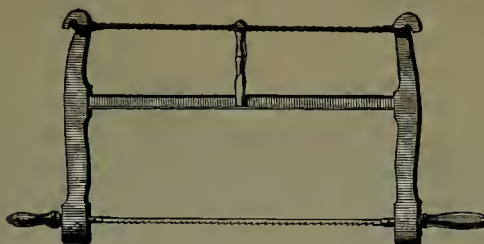


Frame Painted Red.

Complete with Special No. 6 Blade	Per Dozen, \$11 00
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PACKED IN HALF-DOZEN BOXES.

## Turning Saws and Frames.



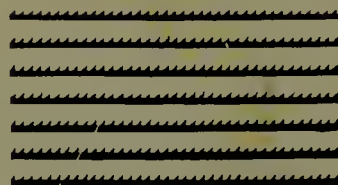
Size, Inches,	10	12	14	16	18	20	22	24	26	28	30
Per Dozen, \$	10 75	12 00	13 25	14 75	15 75	17 50	18 50	19 50	20 50	21 50	22 50

### "Griffin's" Patent Saw Blades.



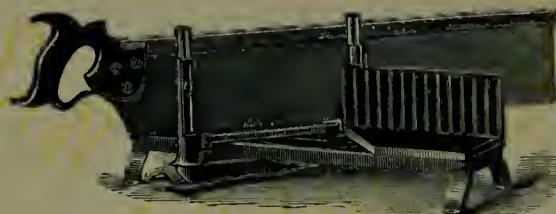
ALL NUMBERS  
FROM  
No. 000 to 7  
Per Gross . \$1 50

### Star Bracket Saw Blades.



ALL NUMBERS  
FROM  
No. 000 to 7  
Per Gross . . \$1 50

## The "New Langdon" Mitre Box.



Size No. 1, with Saw 4 Inches Wide under Back.

With 18 Inch Disston & Sons' Saw	Each, \$7 75
" 20 " " " " "	" 8 25

Size No. 2. Saw 4 Inches Wide Under Back, with Extension Lever.

With 22 Inch Disston & Sons' Saw	Each, \$ 9 75
" 24 " " " " "	" 10 25

Size No. 2 1/2. Saw 5 Inches Wide under Back, with Extension Lever.

With 28 Inch Disston & Sons' Saw	Each, \$12 00
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Size No. 3, with Saw 6 Inches Wide under Back.

With 30 Inch Disston & Sons' Saw	Each, \$20 00
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Size 1 gives 6 Inch width at right angles, 4 at mitre.

" 2 " 9 1/2 " " " 6 1/2 "
---------------------------

Size 2 1/2 gives 9 1/2 Inch width at right angles, 6 1/2 at mitre.

" 3 " 9 1/2 " " " 6 1/2 "
---------------------------

## “Olmsted's” Mitre Box.



These Mitre Boxes are made in two sizes, and are of the best workmanship and are nicely finished. The iron work is painted and varnished, and the frames are finished in oil varnish, making them impervious to the action of the atmosphere. A moulding 3 by 1½ inches can be sawed in the No. 1 size, and 4 by 2½ inches in the No. 2 size.

It is suggested that when a narrow-blade saw is used, that a piece of board be placed in the bottom of the Mitre Box, which will bring the work up and also prevent the saw from cutting the bottom of the box.

No. 1.	Without Saw	Each, \$1 25
No. 2.	" "	" 1 75

## “Alexander's” Adjustable Gauge.



Attach the Gauge to the plane so that the depression in the center of the wing of the Gauge shall be directly opposite the cutting edge of the plane iron.

Price	Each, \$1 50
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## “Prize Demas” Lathe and Scroll Saw.



### Description of “Prize Demas” Scroll Saw.

This machine, as its name indicates, will be a prize to any one fortunate enough to possess one of them. Its principles are such as practical experience have proven to excel in every particular. Five years of constant devotion to the public's wants has produced this result; in it we have overcome every defective point which may have been brought up by some of the many thousands who, in the past five years, have used a lathe and saw of some description, and we can now truthfully say that in this machine you get everything that the heart may crave for, and put up in such a manner as will give you perfect satisfaction. It is as much a necessity in every household as the sewing machine, and its benefits are much greater. Every man can be proud of it. Every machine, or part thereto, is thoroughly inspected before leaving the factory. Still, as heretofore, we consider it a favor for any party to notify us at once should they get a machine which is not perfectly satisfactory in every respect, as we have always made it a point to please all and wish to continue to do the same.

The above cut is an exact representation of the true proportions of this machine, which is exceedingly symmetrical and tasty in appearance. While we have been sparing of the iron, it has been properly and practically distributed, producing the greatest possible strength.

Dimensions and capacity of machine are as follows: Height from floor to top of lathe bed,  $27\frac{1}{2}$  in.; to centers, 30 in.; to top of saw table, 32 in.; length of lathe bed,  $24\frac{1}{2}$  in.; it will turn a piece 16 in. long and 5 in. in diameter; diameter of balance wheel, 14 in.; weight, 11 lbs; stroke of crank, 4 in.; size of lathe spindle, 7/16; short rest, 4 in. long; long rest, 12 in.; stroke of scroll saw,  $1\frac{3}{4}$  in.; it will cut  $1\frac{1}{2}$  in. thick, if necessary, but 1 in. practically, and swing 20 in. in the clear; it has tilting table, which is ground and polished; the ways to lathe bed are also ground and polished—in fact it is so finished that it will do just as fine work and just as satisfactorily as any \$50.00 lathe and saw. Chucks for holding drills, etc., can be attached. Weight, 50 pounds.

Price

\$10 00

## The New "Rogers" Saw.



ALL PARTS MADE TO INTERCHANGE.

While our Jig Saw possesses *every improvement and advantage* claimed for any other in the market, we further claim the following points of superiority, viz.:

1. The *Bearings to the Arms* are carefully sized to bring them in perfect line. (This is a vital point in the construction of any Jig Saw.)

2. We provide each machine with a *Dust Blower*, which is a very great advantage.

3. Our machine has a *jointed Stretcher Rod*, which allows the operator to throw the upper arm out of the way when adjusting his work or saw. This joint also permits the machine to work much more freely than with a straight iron rod.

4. Our clamps have a *hinged jaw*, which overcomes the disagreeable raking overthrow of the blade, which is unavoidable when the saws are secured rigidly to the arms. Saw blades are not nearly so liable to break when clamps have this joint. Thus a *large per centage* of the expense of running the saw is saved. Besides this the saw runs *much easier*, the swing coming at the *hinge* instead of bending the blade with each stroke of the saw.

5. The Balance Wheel is  $4\frac{1}{4}$  inches in diameter, with a handsome spoke center and *Rim of Solid Emery* (No. 70),  $\frac{5}{8} \times \frac{3}{4}$ .

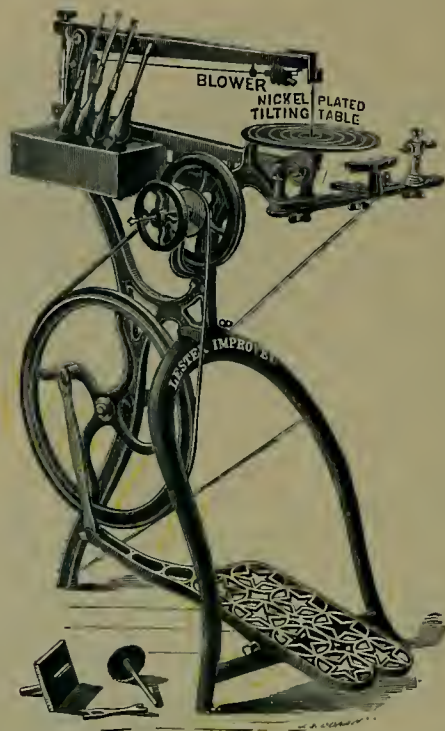
Our attachment for *Drilling* is on the *Right Hand* side of the machine, which, for convenience, is an obvious advantage.

Price, Complete . . . . . \$6 00

### PRICE OF FANCY WOODS PER SQUARE FOOT.

Thickness, Inch,	1/8	3/16	1/4
White Holly, \$o 20	o 20	o 25	o 25
Mahogany, \$o 20	o 20	o 25	o 25
Black Walnut, \$o 12	o 12	o 15	o 15

## "Lester" Improved Saw.



This machine is adapted alike to the use of either AMATEURS or MECHANICS and will be found very convenient in PATTERN MAKING.

The Lester Saw is made of iron and steel, except the Pitman and Arms, which are Ash. The *Iron Work* is nicely japanned black, with stripes of red and gilt. The *Wood Work* is varnished, bringing out the beautiful grain of the ash.

The *Driving Wheel* is 15 inches in diameter, and weighs 13 lbs. The *Treadle* is made of *Iron* from a new and handsome pattern.

The *Scroll Sawing Attachment* is provided with a *Tilting Table* for inlaid work. The Arms swinging 18 inches in the clear. A *Dust Blower* which works automatically. A *Roller* inserted in the Table back of the saw, which makes it run perfectly true. The Clamps will hold the coarsest or finest Saw perfectly, while they are made adjustable to the right or left, or backward and forward, so that the blade may be kept in line. This Saw will cut lumber from  $1/16$  inch to 2 inches in thickness.

The *Circular Saw Attachment* consists of a Saw 3 inches in diameter and an iron table,  $3 \times 4\frac{1}{2}$  inches. This Saw will cut lumber up to  $1/2$  inch.

The machine is also furnished with a *Solid Emery Wheel* and *Drilling Attachment*, accompanied by 6 best Stubbs Steel Drills, of assorted sizes.

The *Lathe Attachment* is provided with iron ways and rests, steel centers, and 3 fine steel turning tools. Length of bed, 15 inches. Distance between centers, 9 inches. Swing, 3 inches. Length of slide rest, 4 inches.

The following parts are supplied with each machine, viz. : 6 Saw Blades, 1 Wrench, Screw Driver, 2 Sheets of Designs, and a nice box for the small tools.

When shipped it is taken apart and packed in a box, but can easily be set up by following the directions accompanying each machine.

Price, with Nickel-Plated Table and Saw Guide, \$12 00.



## "Cricket" Saw.



For Scroll Sawing alone it is about as good as the higher price Saws and the finish is the same as our Lester and Rogers' Saws. It has an Iron Tilting Table, Second growth Ash Arms, 18 Inches long, improved Clamps, etc.

Price . . . . . \$4 50

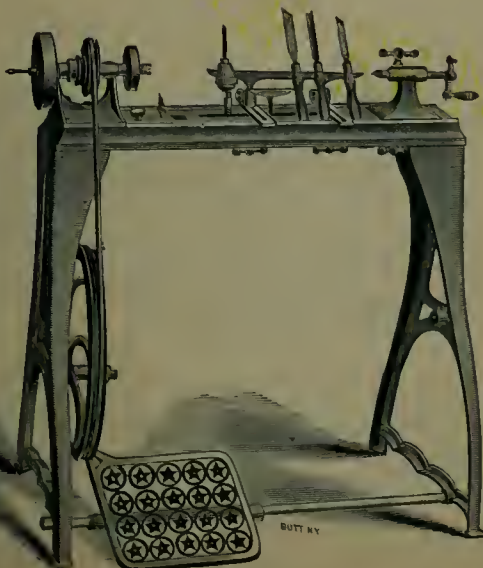
## No. 2. Bracket Sets.



These sets are packed in paper boxes, and embrace a Spring Steel Saw Frame, polished and nickel-plated, 5 x 12 inches, having patent Clamps for holding the Saw blades, rosewood handle. Fifty full sized designs, embracing a great variety of fancy and useful articles; 6 Saw Blades, 1 Awl, 1 Sheet of Impression Paper, and full directions for using the Saw.

Price . . . . . Per Dozen, \$15 00

## "Goodell" Lathe.



This Lathe was designed by Mr. A. D. Goodell, for many years the master mechanic at the factory in Miller's Falls, and the inventor of many valuable machines. It is patterned almost exactly after the latest improved Lathes now used in the best machine shops and pattern makers' rooms. The large driving wheel has two grooves of varying depths, on its face, to give a change of speed, as the belt runs from it to the cone pulley on the Lathe head. The higher speed is 11 to 1, the lower 7 to 1. The Lathe head is provided with a 2 inch face plate, a spur center, a screw center for turning cups, and also with a very nice drill clinck to hold from 1/32 to 1/4 inch round twist drills for drilling wood or iron. It also has on the outer side of the pulley a 4 1/2 x 7/8 inch solid emery wheel and a drill spindle, with set screw, to hold drill points for wood drilling. The tail stock has a screw feed center, which is secured at any point desired, by a clamping arrangement like that on the modern engine lathes. It is also provided with a long and short tool rest, 5 turning tools, wrench, drill points, etc., etc. Swing of lathe, 5 inches; length of bed, 24 inches; distance between centers, 15 1/2 inches.

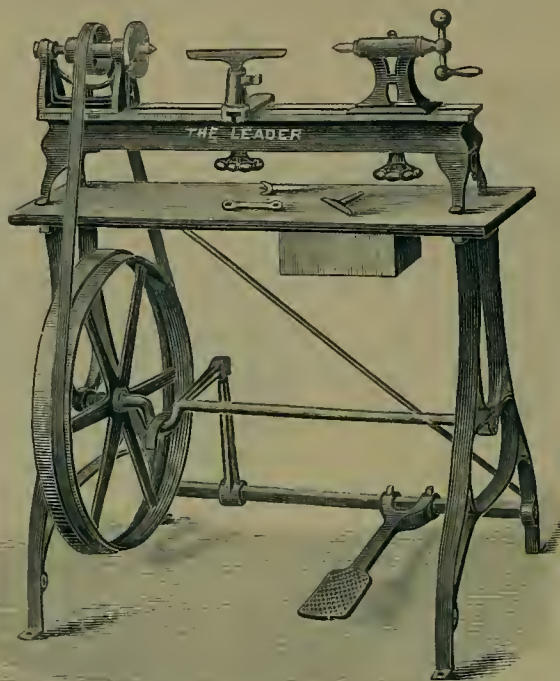
This Lathe is thoroughly built and highly finished, the planed and polished parts being nickel-plated.

Price of Lathe and Lathe Tools . . . . . \$12 00



# Combination Lathes.

Lathe without Saw Attachments.



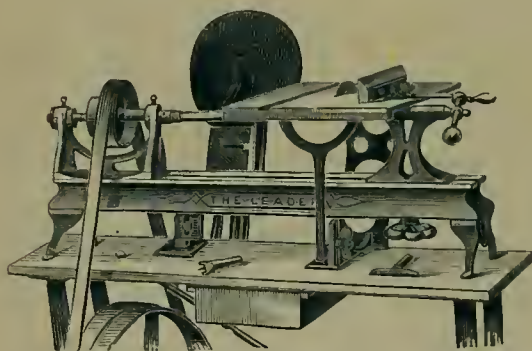
This Lathe has been made especially to meet a want felt by many for a really good and substantially made foot-lathe at a reasonable price, and we think that we can safely say that it is by far the best lathe ever placed on the market at the price asked. The bed, head, and tail stocks are of iron; the spindles of steel. The bearings of the head stock are conical, so that the wear can be easily taken up.

Material 18 inches long and 8 inches in diameter can be turned on it.

The pieces that accompany this lathe without extra charge are 2 T rests, 2 plain centers, 1 spur center for wood turning, and 1 face-plate.

The bench is made of iron, with a walnut top and drawer for holding tools. Like the lathe, it is well made in all its parts, and is strong, neat and solid.

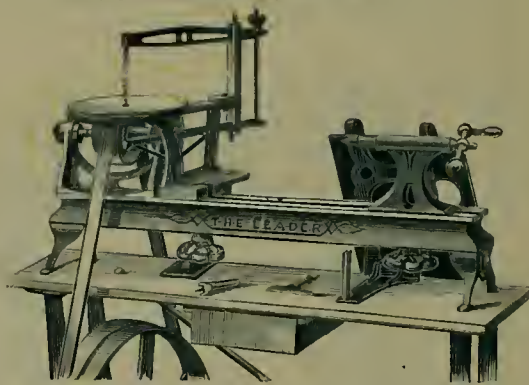
## Circular Saw Attachment.



The above Circular Sawing Attachment is intended for those who desire a good, practical machine, and will be found very effective. The table is of iron, planed true, and can be adjusted as to height. It has a guide running in a groove at right angles with the saw, and a slide operated in a similar groove parallel to the saw. The slide can also be adjusted to different angles. One each 4 inch slitting and cutting-off saws accompany this Attachment.

Price of Lathe, without Saw Attachments . . .  
 " " " WITH SCROLL Saw Attachments . . .  
 " " " with both Scroll and Circular Saws . . .

## Scroll Sawing Attachment.



This Attachment, like that for Circular Saws, is a good and thoroughly practical machine, sawing wood at least 1½ inches thick. It is moved by a Pitman connecting it with the face-plate by means of a small std. The bolt of the T rest holder is used for fastening this attachment to the lathe, and when not in use it can be thrown back behind the shears without entirely removing from the lathe, unless so desired.

The depth between the saw and back or upright is 15 inches.

\$45 00  
 55 00  
 70 00

# Light Screw-Cutting Lathe.



SWINGS 8 x 20 INCHES.

lathe almost without an effort. The head spindle is made of  $1\frac{1}{4}$  inch solid steel, and is run in gun metal boxes, provision being made to take up all wear and keep them true. The tail spindle is  $\frac{7}{8}$  of an inch in diameter.

Either right or left hand threads may be cut with this lathe. We furnish gears to cut from 3 to 40 threads, to the inch, as per index. Other threads may be cut by using extra gears, which we can furnish to order.

With this Lathe we furnish a face-plate, two pointed centers, wrenches and gears to cut all the threads, as per index.

The cut represents a new Screw-Cutting Engine Lathe, which swings 8 inches over shears, 20 inches between centers, and weighs 250 pounds. It is made of iron from the floor up, and finished in the most complete and workmanlike manner.

This Lathe is made from entirely new patterns, and is of the latest design and very best workmanship.

For Model-makers, Inventors, Electricians, Sewing Machine Agents, Amateurs, and others having use for a small Screw-Cutting Lathe, it is just the tool that is wanted, and is specially designed for their business and purposes.

With this Lathe you can turn iron, steel, brass, bone, wood or ivory. Also polish, drill, do milling, screw-cutting, or any other kind of work that can be done on any larger lathe proportionately, and can do all the above satisfactorily, as it is designed for solid work, not being a mere toy or plaything.

The bed has four V's, is  $6\frac{1}{2}$  inches wide, and is thoroughly braced.

The head-stock is a three-speed cone for one-inch belt. The back gear is thrown in and out by a cam. The head is detachable, so as to admit of re-adjustment should the spindle become untrue. All bearings are scraped. The tail stock sets over for turning tapers and is fastened down by a cam.

By moving the head stock and driving wheel to the foot of the lathe large surfaces may be turned or polished. This is a great feature for pattern makers, and others.

The carriage and rest is of the most approved and latest design. It is gibbed to the bed both front and back. It is detachable for hand work, and can be thrown into feed instantly for turning or screw cutting. All thread for screws are bastard, that is, half square, half V. The gears are cut from solid metal, in the best machinery known for gear cutting, and are as true and noiseless as it is possible for metal gear to be.

The treadle is of wrought angle iron; the rod supporting the driving wheel runs on friction wheels; the driving wheel weighs about 60 pounds, is turned and polished; the Pitmans slip through a hole in the foot bar, so that if you get your foot under the treadle it will not be injured, nor will the treadle unhook. The top of the Pitmans are of gun metal, and the length of the stroke is adjustable.

The foot motion is the easiest, lightest, and stiffest one known, and runs the

## Index for Lathe.

SCREW IS FIVE THREADS TO THE INCH.

No. Threads	3	4	5	6	7	8	9	10	11	12	No. Threads	14	16	18	20	22	24	28	32	36	40
Spindle	40	40	40	40	40	40	40	40	20	20	Spindle	20	20	20	20	20	20	20	20	20	20
Screws	48	64	40	48	56	64	72	80	44	48	Screws	56	64	72	80	44	48	56	64	72	80
Stud	2to1	2to1	..	..	..	..	..	..	..	..	Stud	..	..	..	..	1to2	1to2	1to2	1to2	1to2	1to2

## Rules for Gearing an Engine Lathe.

Divide the number of threads in a given length of the screw which is to be cut, by the number of threads in the same length of the leading screw of the lathe, and the quotient is the ratio that the wheel on the end of the screw must bear to that on the end of the lathe spindle

## Compound Gearing.

Multiply the gear on the spindle by the thread you wish to cut, then divide by the gear in contact with spindle gear; then multiply by the gear in contact with screw gear; then divide by the number of threads on the lathe screw, and the quotient will be the gear for the lathe screw

### PRICE LIST AND DESCRIPTION.

### THE FOLLOWING MADE TO ORDER.

SWING.	BETWEEN CENTERS.	LENGTH OF BED.	WEIGHT	PRICE.	LATHES TO SWING.	BETWEEN CENTERS.	LENGTH OF BED.	WEIGHT.	PRICE.
8 Inches.	20 Inches.	36 Inches.	250 Pounds.	\$65 00	8 Inches.	30 Inches.	46 Inches.	270 Pounds.	\$75 00
					8 "	36 "	52 "	280 "	80 00

## Countershaft.



For Above Lathe

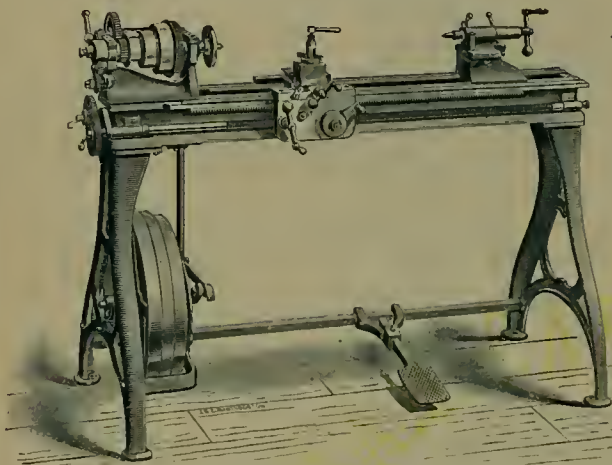
\$9 00



## Screw Cutting Lathe.

### Foot Power Engine Lathe.

11 INCH SWING. WITH PLAIN GIB REST.



gears go with the Lathe, which will cut all common threads and a great variety of other sizes, by compounding them. There is a screw stop on the Carriage for screw cutting, etc.

The Tail Stock can be set over for turning tapers, etc. The spindle of Tail Stock is  $1 \frac{1}{16}$  inch diameter, and has a motion of 3 inch. The center is fitted to a taper hole, which is the method adopted by all the best makers, and is the same size as the one in Head Stock, so that chucks and other tools fitted to one can be used in the other.

The Foot Motion we consider the best made, the crank is adjustable and the shaft has swivel bearings; the Balance Wheel is 22 inch diameter, and has three speeds to match Cone on Head Stock: cuts Screws from 5 to 32 threads to the inch.

Hollow Steel Spindle in Head, receives Rods up to  $\frac{1}{2}$  inch in diameter.

Foot Power, Bed 4 Feet	\$180 00
" " " 5 "	200 00
Overhead Pulleys for Same	12 50

#### DESCRIPTION OF LATHE, 4 FEET BED.

The Lathe occupies a floor space of 28 x 48 inches, the centers being 44 inches high from the floor; the bed is 48 inches long,  $6 \frac{1}{2}$  inches wide,  $5 \frac{1}{2}$  inches deep, with double Vs. for Carriage and Tail Stock. It swings 10 inches over bed and 6 inches over Carriage, and will turn 26 inches long.

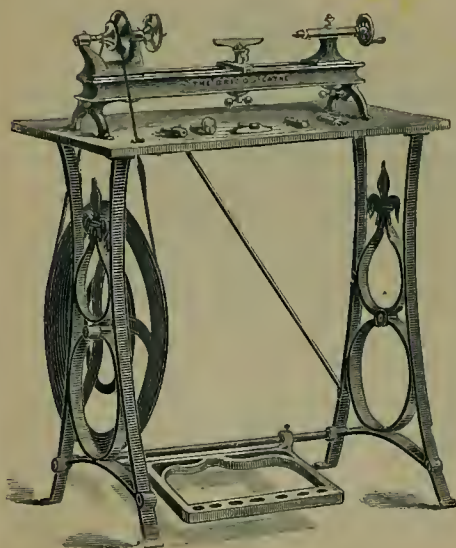
The Head Stock is back geared, and the cone has three speeds for  $1 \frac{1}{2}$  inch belt, the smaller being 3 inch diameter, the larger 6 inch diameter; this, with the back gears, gives six different speeds, the fastest giving about 1,000 revolutions of the Arbor to 100 of the Balance Wheel, and the slowest 75 of the Arbor to 100 of the Balance Wheel; this gives a sufficient range for all kinds of work.

The Carriage has a rack and pinion for moving it by hand, and a split nut moved by a cam on the face of Carriage to throw it in gear with screw; the reversing motion is in Head Stock.

The Tool Post has a slot for tools  $\frac{3}{8} \times 1 \frac{1}{8}$  inch; the tool is adjusted by a wedge made on the arc of a circle and fitted to a convex washer. The leading screw runs the whole length of Lathe, and has 10 threads to the inch. A set of

## The "Briggs" Lathe.

#### DESCRIPTION OF THE "BRIGGS" LATHE.

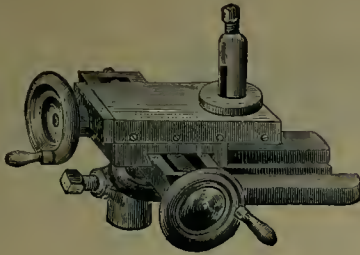


This Lathe will turn a piece of wood or metal 12 inches long and 6 inches in diameter. It can be used with equal advantage for Drilling, Polishing, Sawing, etc., etc. The length of bed is 24 inches; the spindle is made of steel, has a conical bearing, and can be tightened as it wears. The bed, head, tail stocks and cone pulley are of cast iron and the centers of steel. The following pieces are furnished with the Lathe: 2 T rests, 1 face-plate, 2 plain centers, 1 spur center for wood, 1 plain drill chuck, 1 drill pad and 1 center left blank to turn down as a fitting for a universal chuck. The bench weighs 81 pounds, is made of iron, with a black walnut top, and has a driving wheel measuring 22 inches in diameter, with three grooves for changes of speed.

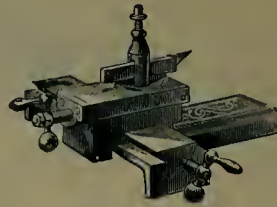
Lathe, 24 Inch Bed,	\$25 00
" 30 " "	30 00



## Slide Rests.



No. 1.

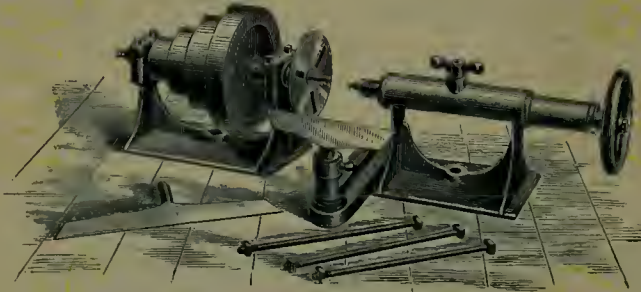


No. 2.

No. 1 represents a small Slide Rest, for use on small Lathes. It has a longitudinal motion of  $2\frac{3}{4}$  inches, and a transverse motion of  $1\frac{1}{2}$  inches. It can be used for turning straight or taper work, or for boring straight or taper holes. It can also be raised or lowered to suit different heights of centers, and will be found a very useful adjunct to any small Lathe.

No. 1.	Description as above	Each, \$10 00
No. 2.	Suitable for Lathes 6 and 8 inch Swing	" 12 00

## "New London" Lathe Heads.



No. 0,	with Wooden Cone Pulleys, Swings 9 Inch	Each, \$20 00
No. 1,	" " " " " 12 "	" 25 00
No. 1½,	" " " " " 13 "	" 35 00
No. 2,	" " " " " 15 "	" 50 00

## Overhead Hangers and Pulleys.



No. 1,	intended for Lathe Head No. 1, above	Each, \$12 00
No. 1½,	" " " " " 1½, "	" 18 00
No. 2,	" " " " " 2 "	" 24 00

# Auger Bits.

Mechanics'.



Inch,	4	5	6	7	8	9	10	11	12	13
Per Dozen, \$	3 00	3 00	3 25	3 25	3 50	4 00	4 50	5 00	5 50	6 00
Inch,	14	15	16	18	20	22	24	26	28	30
Per Dozen, \$	6 50	7 25	8 00	10 00	11 00	12 00	14 00	18 00	20 00	22 00

Sets of 13 Bits, assorted,  $\frac{1}{4}$  to 1 Inch

Per Set, \$5 50

"Russell Jenning's."



Inch,	4	5	6	7	8	9	10	11	12	13
Per Dozen, \$	3 00	3 40	3 80	4 40	4 80	5 20	5 60	6 10	6 60	7 20
Inch,	14	15	16	18	20	22	24	26	28	30
Per Dozen, \$	7 80	8 40	9 00	10 20	11 40	12 60	13 80	15 00	16 20	17 40

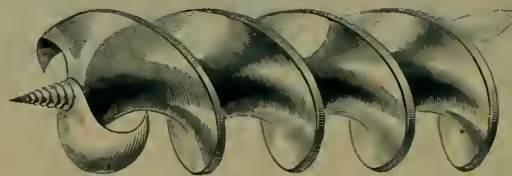
Sets of 13 Bits, assorted,  $\frac{1}{4}$  to 1 Inch

Per Set, \$6 25

## Machine Dowell Bits

Same List as above.

"Cook's."



Inch,	4	5	6	7	8	9	10	11	12	13
Per Dozen, \$	4 00	4 25	4 50	5 00	5 50	6 00	6 50	7 25	8 00	8 75
Inch,	14	15	16	18	20	22	24	26	28	30
Per Dozen, \$	9 25	10 00	10 75	12 25	13 50	14 50	15 50	17 00	18 50	20 00

Sets of 13 Bits, assorted,  $\frac{1}{4}$  to 1 Inch

Per Set, \$7 50

## Car Bits.



Inches,	4	5	6	7	8	9	10	11	12	13	14	15	16	Sets, $\frac{1}{4}$ to 1 Inch.
Snell's & Cook's, Per Doz., \$	6 00	6 00	6 75	8 25	9 50	10 50	12 00	12 50	14 75	15 50	16 75	17 75	19 50	Per Set, \$13 00
Jenning's, " " \$	6 00	6 80	7 60	8 80	9 60	10 40	11 20	12 20	13 20	14 40	15 60	16 80	18 00	" " 12 50

## Ship Auger Bits with Screw Only.



Sizes To	4/8	4 1/2 and 5	5 1/2 and 6	6 1/2 and 7	7 1/2 and 8
Per Dozen, \$	6 00	7 50	9 00	10 50	12 00

## "Cook's" Patent Machine Bits.

Made expressly to order with Turned Shanks,  $\frac{1}{2}$  Inch.



Sizes,	1/4	5/16	3/8	1/2	9/16	5/8	11/16	3/4	13/16
Each, \$	0 50	0 60	0 65	0 90	1 00	1 15	1 20	1 25	1 40
Sizes,	7/8	15/16	1	1 1/8	1 1/4	1 3/8	1 1/2		
Each, \$	1 60	1 70	1 75	2 25	2 50	2 65	2 75		

## Augers.

### Polished Nut Augers.



Sizes, Inch,	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{4}$	$2\frac{1}{2}$	$2\frac{3}{4}$	3	$3\frac{1}{2}$	4	$4\frac{1}{4}$
Per Dozen, \$	5 50	8 00	9 50	11 50	14 00	17 00	20 00	24 00	30 00	35 00	40 00	50 00	70 00	80 00

### Millwrights' Augers.



Size, Inch,	$\frac{1}{2}$	$\frac{3}{8}$	$\frac{1}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2
Per Dozen, \$	12 00	15 00	18 00	21 00	24 00	26 00	30 00	36 00	38 50	42 00	48 00

### Boring Machine Augers.



Size, to Inch	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2
Per Dozen, \$	10 00	12 00	14 00	16 00	18 00	22 00

In Sets, 1,  $1\frac{1}{2}$  and 2 Inch, per set, \$4 50

### Gas Fitters' Augers.



Actual size of Auger, Inch	$\frac{3}{8}$	$\frac{1}{4}$	$\frac{7}{8}$	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{2}$
Suitable for Gas Pipe "	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2

Price . . . . . 30 cents per qr., actual size.

### Ship Augers, with Screw.



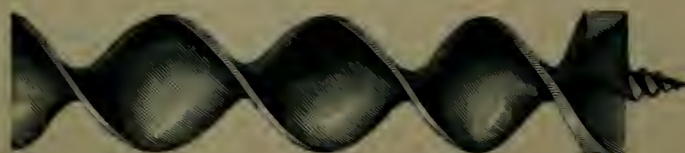
### Ship Augers, without Screw.



With or Without Screw, Price the Same.

Size, to Inch	$\frac{4}{8}$	$4\frac{1}{2}$ & 5	$5\frac{1}{2}$ & 6	$6\frac{1}{2}$ & 7	$7\frac{1}{2}$ & 8	$8\frac{1}{2}$ & 9	$9\frac{1}{2}$ & 10	$10\frac{1}{2}$ & 11	$11\frac{1}{2}$ & 12	$12\frac{1}{2}$ & 13	$13\frac{1}{2}$ & 14	$14\frac{1}{2}$ & 15	$15\frac{1}{2}$ & 16
Per Dozen, \$	7 50	9 00	10 50	12 00	13 50	15 00	16 50	18 00	21 00	24 00	25 50	27 00	31 50

### "Drew's" Treennail Augers.



$1\frac{1}{8}$  and  $1\frac{1}{4}$  Inch

Per Dozen, \$15 00



## "Clark's" Patent Expansion Bits.



### Small Size.

With 2 Cutters, one boring from  $\frac{1}{2}$  to  $\frac{7}{8}$  and the other from  $\frac{7}{8}$  to  $1\frac{1}{2}$  inches.

Per Dozen . . . . . \$18 00

### Large Size.

With 2 Cutters, one boring from  $\frac{7}{8}$  to  $1\frac{1}{4}$  and the other from  $1\frac{1}{4}$  to 3 inches.

Per Dozen . . . . . \$26 00

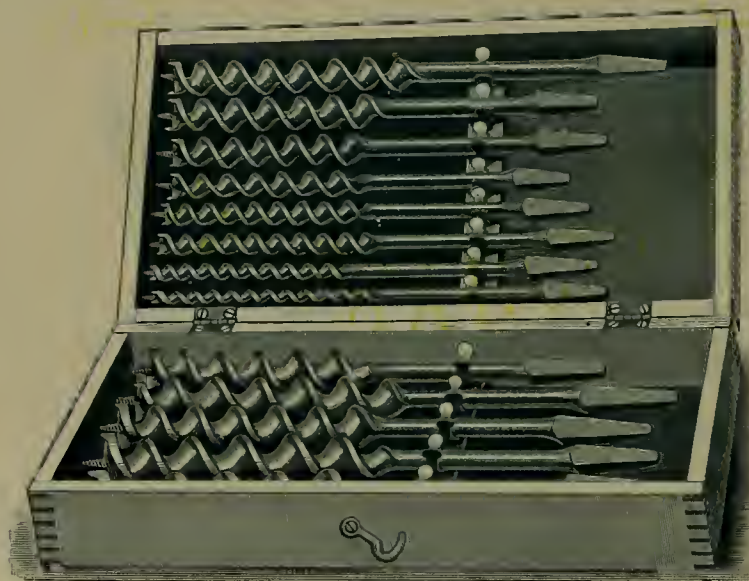
### Extra Cutters.

No. 1.  $\frac{1}{2}$  to  $\frac{7}{8}$  inches . . . . . Each, \$0 40  
 " 2.  $\frac{7}{8}$  to  $1\frac{1}{2}$  " . . . . . " 0 50

### Extra Cutters.

No. 3.  $\frac{7}{8}$  to  $1\frac{1}{4}$  inches . . . . . Each, \$0 50  
 " 4.  $1\frac{1}{4}$  to 3 " . . . . . " 0 60  
 " 5. 3 to 4 " . . . . . " 1 00

## Auger Bits in Fancy Wood Boxes.



This Illustration represents Auger Bits as put up in FANCY BOXES, with rack to hold one Auger Bit of each size. This is a great convenience to mechanics, as the Bits can be put away immediately after use; each Bit fitting into its own place. These Boxes would cost the mechanic at least 50 cents without the Bits.

No. 10. Extension Lip Bits,  $3\frac{1}{2}$  Qrs . . . . . Per Set, \$6 25  
 " 30. Double Spur "  $3\frac{1}{2}$  " . . . . . " " 5 50

## "Garrett's" Patent Auger Bit Gauge.



The above represents a convenient tool for all wood mechanics. By placing it on the bit, as shown in cut, you are enabled to bore any number of holes all the same depth, while the revolving wheel prevents marring the work.

Price . . . . . Per Dozen, \$6 00

### German Gimlet Bits.



To Inch, 1/4	5/16	3/8	7/16	1/2
Per Dozen, \$1 00	1 25	1 50	2 50	4 00

Assorted, to 1/4 Inch . . . . . \$1 00

### Double Cut Gimlet Bits.



Nos. 0	1	2	3	4	5	6
Per Dozen, \$1 00	1 10	1 22	1 34	1 46	1 58	1 75

Assorted, 0 to 6 . . . . . \$1 40

### Lip, Spoon and Shell Bits.



To Inch, 1/8	3/16	1/4	5/16	3/8
Per Dozen, \$1 50	1 75	2 00	2 00	2 00

### Diamond Bits with Countersink.



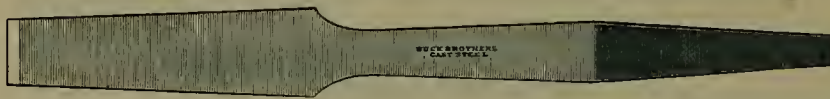
Assorted . . . . . Per Dozen, \$2 00

### Center Bits.



To Inch, 1	1 1/8	1 1/4	1 1/2	1 3/4	2
Per Dozen, \$1 75	2 25	2 50	3 25	3 75	4 50

"Buck Bros." Extra Heavy Screw Driver Bits.



Per Dozen . . . . . \$3 00

Plain Screw Driver Bits.



Per Dozen . . . . . \$1 50

Forked Screw Driver Bits.



Per Dozen . . . . . \$1 50

Square or Octo. Reamers.



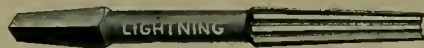
Per Dozen . . . . . \$1 50

Half-Round Reamers.



Per Dozen . . . . . \$1 50

Lightning Taper Reamers, for Bit Brace Use.



Inch, 1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4
Each, \$0 50	0 50	0 60	0 60	0 70	0 80	0 90	1 20

Flat or Iron Countersinks.



Per Dozen . . . . . \$1 50

Snail or Wood Countersinks.



Per Dozen . . . . . \$1 50

Rose or Brass Countersinks.



Per Dozen . . . . . \$1 50

"Mayhew's" Metal Countersinks.



Per Dozen . . . . . \$2 00

Lightning Countersinks.



Each . . . . . \$0 60

"Wheeler's" Countersinks.



Plain	Per Dozen, \$3 00
With Gauge	" " 4 50

"Kreb's" Countersinks.

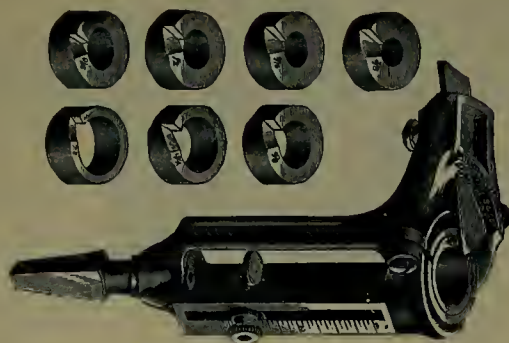


Double Lipped	Per Dozen, \$5 00
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# Hollow Augers.

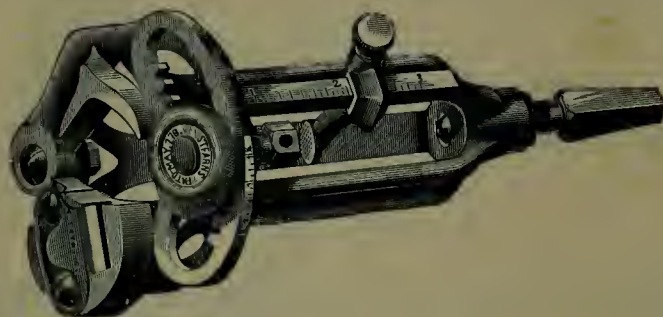
"STEARNS" ADJUSTABLE.



Cuts  $\frac{3}{8}$  to 1 Inch

Each, \$4 00

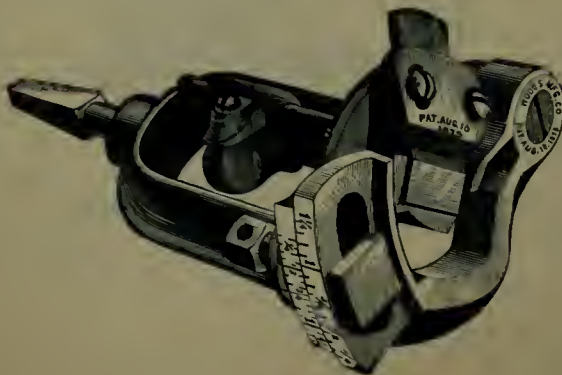
"STEARNS" PATENT ADJUSTABLE.



No. 3. Cuts  $\frac{1}{4}$  to  $1\frac{1}{4}$  Inch

Each, \$5 00

"WOOD'S" PATENT ADJUSTABLE.

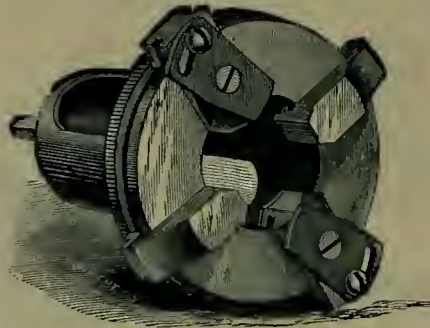


Cuts  $\frac{1}{4}$  to  $1\frac{1}{4}$  Inch

Each, \$4 00

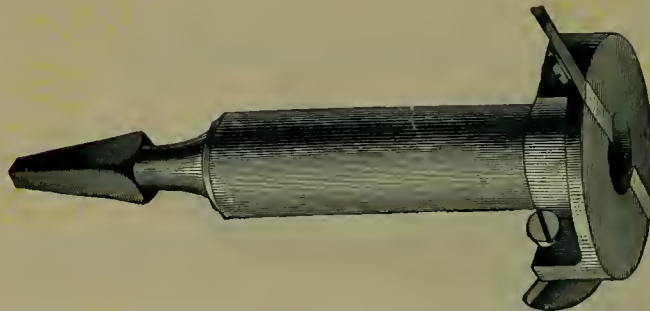
## Hollow Augers.

"Universal" Hollow Auger.

Cuts  $\frac{3}{8}$  to  $1\frac{1}{2}$ 

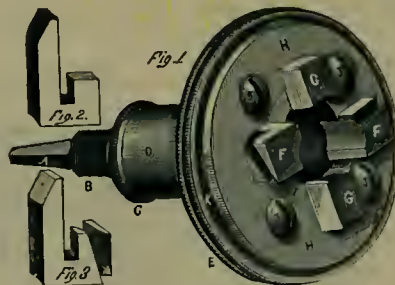
Each, \$4 50

"Ames" Improved Hollow Augers.



Inch, $\frac{3}{8}$ to $1\frac{1}{2}$	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$
Per Dozen, \$12 00	14 00	14 00	14 00	16 00	16 00	20 00	20 00	24 00	24 00

The Silver &amp; Deming "Star" Hollow Auger.



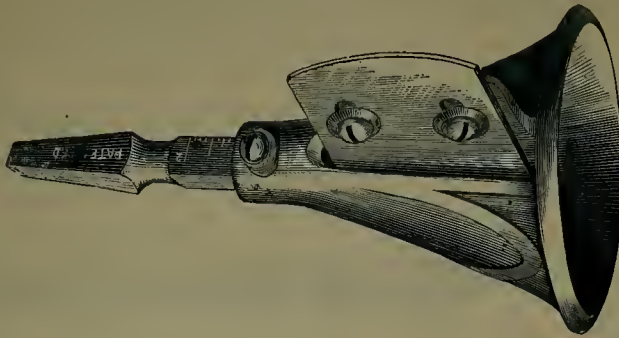
No. 1 Auger cuts $\frac{7}{16}$ to 1 inch	Each, \$ 8 00
" 2 " " $\frac{5}{8}$ " $1\frac{1}{4}$ "	" 14 00
" 3 " " $\frac{3}{4}$ " $1\frac{1}{2}$ "	" 16 50

Extra Cutters for the above, No. 1  
Per Pair, \$1 50

2  
2 00

3  
2 50

# Patent Spoke Pointers.

Cutting to  $\frac{3}{4}$  Inch

Each, \$0 50

" " 2 "

" 0 75

" " 3 "

" 1 25

## "Barton's" Pump Augers.



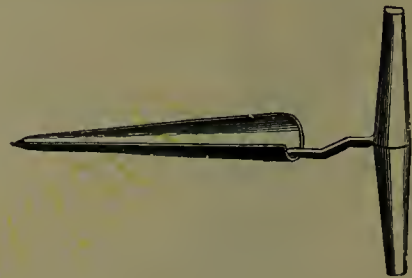
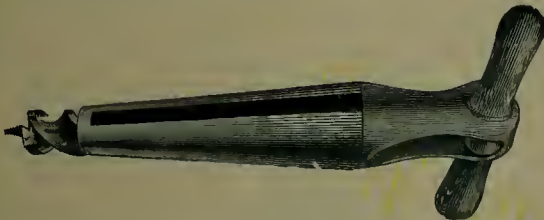
These Tools are made of Solid Cast Steel, and Fully Warranted.

Pod 18 to 20 Inches Long

Per  $\frac{1}{4}$  Inch Diameter, \$1 25

## "Enterprise" Tap Borers.

## Tap Borers.

No. 1. Boring from  $\frac{5}{8}$  to  $1\frac{1}{2}$  Inch . . . Per Dozen, \$18 00No. 2. " "  $1\frac{1}{8}$  " 2 " . . . " " 24 00No. 3. " "  $1\frac{1}{2}$  " 3 " . . . " " 36 00Inch,  $1\frac{1}{4}$  $1\frac{1}{2}$  $1\frac{3}{4}$ 

2

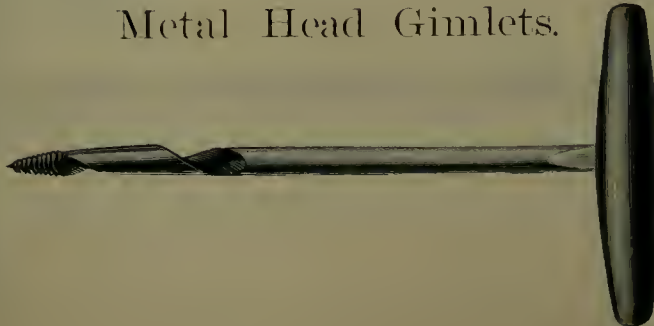
Per Dozen, \$5 50

7 00

8 00

9 00

## Metal Head Gimlets.

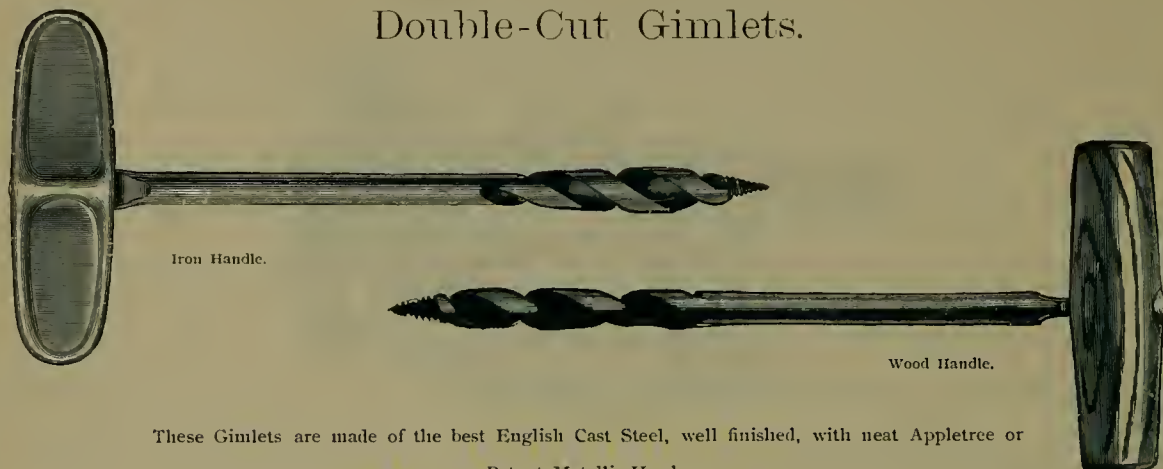


Assorted . . . . .

Per Gross, \$6 00



## Double-Cut Gimlets.



Iron Handle.

Wood Handle.

These Gimlets are made of the best English Cast Steel, well finished, with neat Appletree or Patent Metallic Heads.

Wood Handle . . . . . Per Gross, \$12 00 | Iron Handle . . . . . Per Gross, \$12 00

## The "Bee" Gimlet.

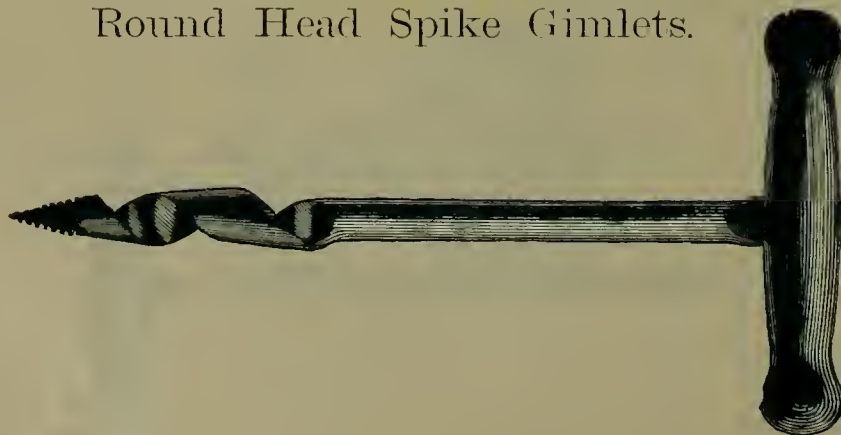


Solid Cast Steel.

Bores Through the Hardest Wood or Knots without Splitting.

Assorted, Three Sizes (Packed  $\frac{1}{4}$  Gross in a Box) . . . . . Per Gross, \$12 00

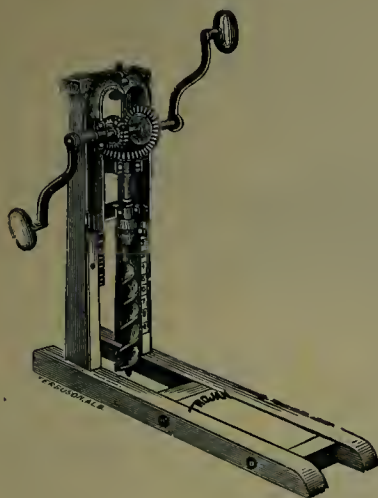
## Round Head Spike Gimlets.



Assorted, Nos. 2, 3 and 4 . . . . . Per Gross, \$9 00

## Boring and Mortising Machines.

Trojan Boring Machines, Upright.

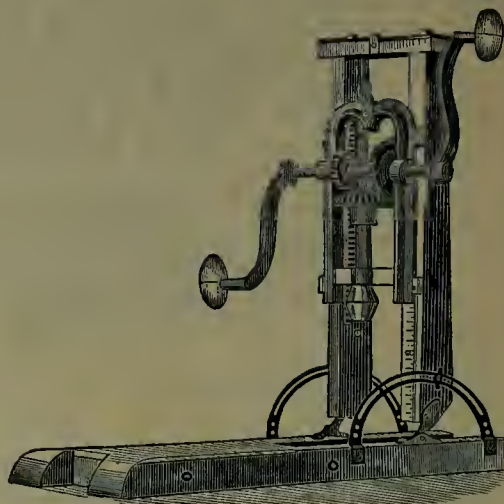


WITH SCALE OF INCHES ON THE UPRIGHT.

Complete with One Auger each, 1, 1½ and 2 Inch Polished Gears.

Price . . . . . \$10 00

Trojan Boring Machines, Angle.

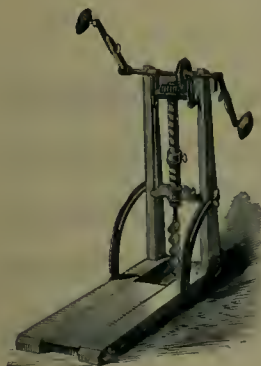


WITH SCALE OF INCHES ON THE UPRIGHT.

Complete with One Auger each, 1, 1½ and 2 Inch Polished Gears.

Price . . . . . \$12 00

"Phillips" Angle Boring Machines.



This machine possesses advantages over others in use in many respects. *The Self-Withdrawing of the Auger while in motion*, is perhaps the most noticeable; that is, the depth of the hole is readily set, before boring commences, by means of the movable collar; and *without watching to see when the proper depth is reached, or stopping the boring movement, the Auger returns of itself, and is ready for another hole.*

Complete with One Auger each, 1, 1½ and 2 inches.

Price . . . . . \$9 00

Mortising Machines.

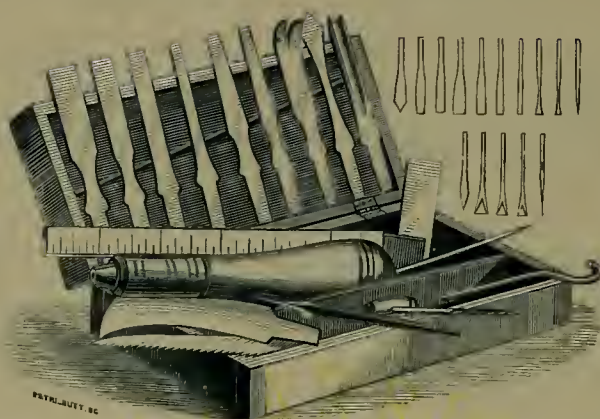


HEIGHT, 4 12 FEET WEIGHT, 115 POUNDS.

Complete with One Chisel each, 1 4, 5 16, 3/8, 1/2 and 5/8 Inch and One Malleable Wrench.

Price . . . . . \$30 00

## Family Tool Boxes.



No. 1. Contains a complete assortment of Cast Steel Tools (20 in number); also a patent Adjustable Holder, with an additional number of 12 Brad Awls, Chisels, etc., and all enclosed in a nice Walnut Case.

Each . . . . . \$3 50

No. 2. Contains an assortment of Cast Steel Tools (9 in number); also a patent Adjustable Holder, with an additional number of Brad Awls, Chisels, etc., and all enclosed in a neat Walnut Case. Especially adapted to the wants of every family.

Each . . . . . \$1 75

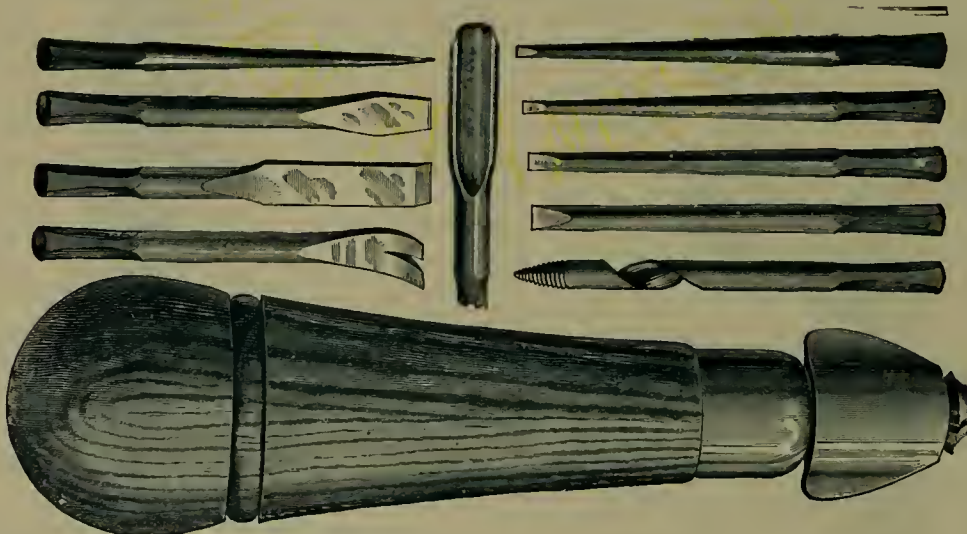
## Carving Tools.

SIX TOOLS IN A WOODEN BOX.

These Tools are forged from best quality of steel, and are fully warranted. They have Rosewood Handles, and are sharpened ready for use.

Price . . . . . \$1 00

## Giant Hollow Handles.



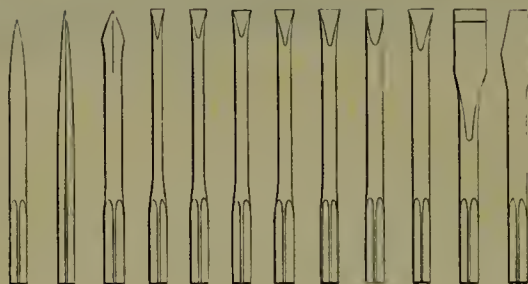
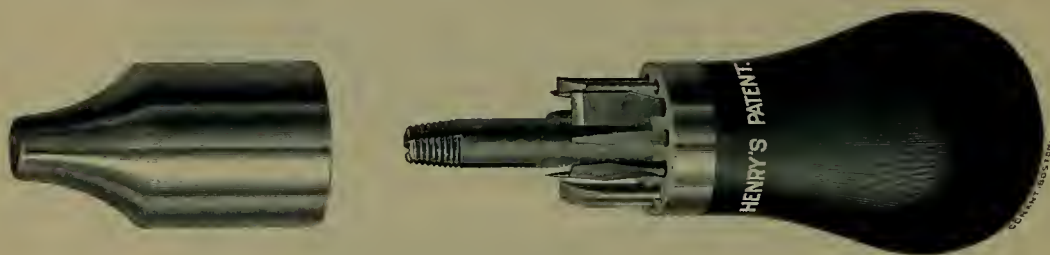
Full size illustration. The Tools are made of the best Cast Steel, tempered in oil, and are superior to anything of the kind ever put on the market.

No. 45 . . . . . Per Dozen, \$12 00





## "Henry's" Improved Patent Awls and Tools.



### The Advantages of this Haft over Others are:

FIRST.—It is the only Haft or Tool Holder that carries the tools in the same end of the Holder in which they are used.

SECOND.—No shifting the Holder end for end in changing the instrument.

THIRD.—No shaking the tools out into the hand to get the one wanted.

FOURTH.—The same motion that unscrews the instrument in use removes the cap that covers the surplus tools.

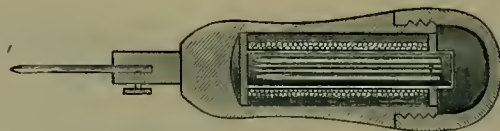
FIFTH.—No Wrench to be used.

SIXTH.—It has a solid handle and can be used with a mallet.

This Haft has a nice rosewood handle. The nut and sleeve or cap is made of bronze metal; is strong and not easily broken. The Awls and Tools are made of Jessop's steel, and nicely tempered for the purposes for which they are designed. The whole making a very durable, convenient and unique article for the household, workshop, store, and, in fact, we may say, everywhere.

Price . . . . . Per Dozen, \$10 00

## Crispins' Awls.



This is a tool for everybody. It is a hollow handle made of hard wood, 5 inches long, and weighing 3 ounces. It contains inside on a spool 50 feet of best waxed linen shoe thread. The spool is also hollow, and contains 3 awls and 3 needles of various shapes and sizes. The thread fits the needles, and the awls fit the handle, and are held by a set screw, as seen in the cut. It is for use in the house, stable, field, camp, or on the road, for making immediate repairs, when one use of it will be worth more than its whole cost.

Per Dozen . . . . . \$3 00

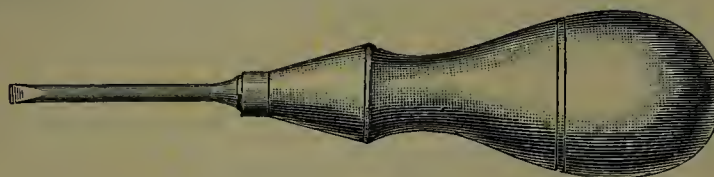
## Handled Brad Awls.



Assorted, Brass Ferrule

Per Dozen, \$0 75

## Handled Scratch Awls.



Assorted

Per Dozen, \$1 00

## Socket Scratch Awls.



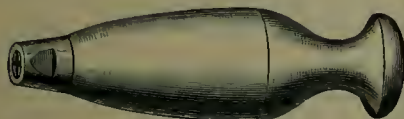
Cast Steel, Socket (1 Dozen in a Box)

Per Dozen, \$1 50

## Patent Awl Hafts.



Wrench to go with Patent Hafts.



Sewing Awl Haft



Peg Awl Haft.

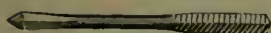
Per Dozen

\$1 00

Per Dozen

\$1 00

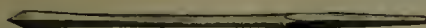
## Awl Blades—Assorted.



Patent Peg Awl.



Sewing Awl.



Saddlers' Awl.



Brad Awl.

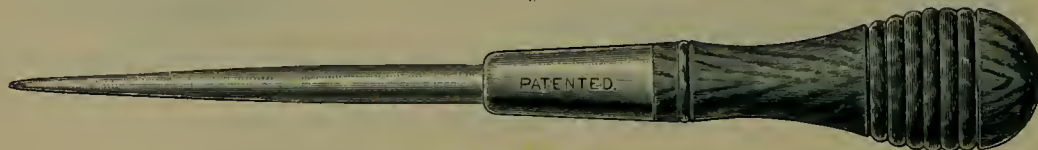
Patent Peg Awls  
Saddlers' "Per Gross, \$1 00  
" " 3 00Sewing Awls  
Brad "Per Gross, \$2 50  
" " 2 50



## Machinists' Belt Awls.



No. 84, M.



No. 83, C.

These Awls are spring tempered, and finished in first-class manner.

No. 84, M, or Small	Per Dozen, \$2 00
" 83, C, " Large	" " 3 50

## "Lothrop's" Belt Awls.



No man ever uses profane language while lacing a Belt with Lothrop's Awn. This is a good moral reason why all should use it.

Per Dozen	\$9 00
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## "Osborne's" Belt Awn.



With Eye in Point of Awn	Per Dozen, \$5 00
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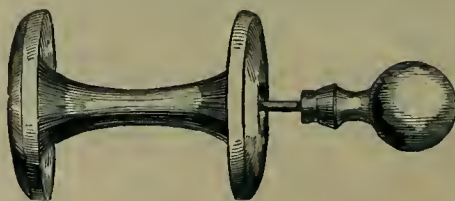
## "Blake's" Belt Stud Awn and Pliers Combined.



The Awn at one end of this tool is to spread to slit and pliers at the other end are convenient for inserting the stud.

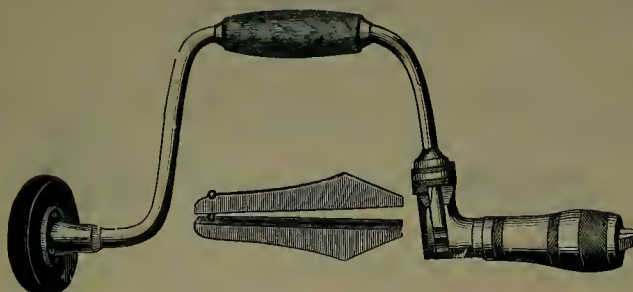
Awn and Pliers Combined	Each, \$0 50
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## Chalk-Line Reels and Awls.



Chalk-Line Reels, with Steel Scratch Awls	Per Dozen, \$1 00
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## "Barber's" Ratchet Braces.



Nos. **31**  
Inch Sweep, 12  
Per Dozen, \$39 00

**23**  
10  
36 00

**33**  
8  
33 00

### "1880" Ratchet Brace.

### Ratchet Bit Brace and Breast Drill.



Polished. Revolving Maplewood Head and Handle.

The above Cnt shows Ratchet Brace and Breast Drill, with Drill Attachment separated from Brace.

No. **29**. 10 1/2 Inch Sweep . . . Per Dozen, \$26 00

Nickel-Plated . . . Per Dozen, \$36 00

### "Barber's" Improved Bit Brace.



Wrought Iron, with Rosewood Handle.

Nos. **10**  
Inch, 14  
Per Dozen, \$33 00

**11**  
12  
30 00

**12**  
10  
27 00

**13**  
8  
24 00

**14**  
6  
21 00

## "1880" Patent Brace.



Revolving Maplewood Head and Handle, Wrought Iron Sweep. Handles Fastened in Position with Metal Ferrule.

No. 7. 8 Inch Sweep . . . . . Per Dozen, \$14 00 | No. 11. 11 Inch Sweep . . . . . Per Dozen, \$16 00

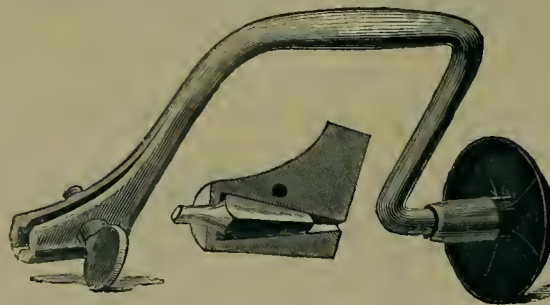
## "Backus" Patent Angular Borer.

## Ball Brace.



Nickel-Plated, Works in any Brace . . . . . Per Dozen, \$35 00 | No. 25. 7 Inch Sweep . . . . . Per Dozen, \$4 00

## "Spofford's" Braces.



Nos.	7	8	10	12	107	108	110
Inch,	7	8	10	12	7	8	10
Per Dozen,	\$16 00	19 00	22 00	25 00	21 00	24 00	27 00

## Straight Extension Bit Holder.



18, 21 and 24 inches long; using the same Chuck that is on Brace for holding the Bit. The Shank is like an ordinary Bit Shank, and fits any Brace.

Nickel-Plated . . . . . Per Dozen, \$15 00



# Morse Twist Drills.

449



TAPER SHANK DRILL.



STRAIGHT SHANK DRILL.

## Taper Shank Drills.

Diameter.	L'gth.	Price Each.	No. Socket for Morse Taper.	Diameter.	L'gth.	Price Each.	No. Socket for Morse Taper.
1/4	6 1/8	\$0 60	No. 1, \$1 20	1 9/32	14 1/8	\$ 4 65	No. 4, \$4 00
9/32	6 1/4	0 65		1 5/16	14 1/4	4 80	
5/16	6 3/8	0 70		1 11/32	14 3/8	5 00	
11/32	6 1/2	0 75		1 3/8	14 1/2	5 20	
3/8	6 3/4	0 80		1 13/32	14 5/8	5 40	
13/32	7	0 85		1 7/16	14 3/4	5 60	
7/16	7 1/4	0 90		1 15/32	14 7/8	5 80	
15/32	7 1/2	0 95		1 1/2	15	6 00	
1/2	7 3/4	1 00		1 17/32	15 1/8	6 30	
17/32	8	1 10		1 9/16	15 1/4	6 60	
9/16	8 1/4	1 20	No. 2, \$1 80	1 19/32	15 3/8	6 90	No. 5, \$7 50
19/32	8 1/2	1 30		1 5/8	15 1/2	7 20	
5/8	8 3/4	1 40		1 21/32	15 5/8	7 50	
21/32	9	1 50		1 11/16	15 3/4	7 80	
11/16	9 1/4	1 60		1 23/32	15 7/8	8 10	
23/32	9 1/2	1 70		1 3/4	16	8 40	
3/4	9 3/4	1 85		1 25/32	16 1/8	8 60	
25/32	9 7/8	2 00		1 13/16	16 1/4	8 80	
13/16	10	2 15		1 27/32	16 3/8	9 00	
27/32	10 1/4	2 30		1 7/8	16 1/2	9 20	
7/8	10 1/2	2 45	No. 3, \$2 50	1 29/32	16 1/2	9 35	
29/32	10 5/8	2 60		1 15/16	16 1/2	9 50	
15/16	10 3/4	2 75		1 31/32	16 1/2	9 65	
31/32	10 7/8	2 90		2	16 1/2	9 80	
1	11	3 00		2 1/32	16 1/2	10 20	
1 1/32	11 1/8	3 20		2 1/16	17	10 60	
1 1/16	11 1/4	3 40		2 1/8	17	11 20	
1 3/32	11 1/2	3 60		2 3/16	17	12 00	
1 1/8	11 3/4	3 80		2 1/4	17 1/2	12 80	
1 5/32	11 7/8	4 00		2 5/16	17 1/2	13 60	
1 3/16	12	4 20		2 3/8	18	14 40	
1 7/32	12 1/8	4 40		2 7/16	18 1/2	15 00	
1 1/4	12 1/2	4 50		2 1/2	19	15 60	

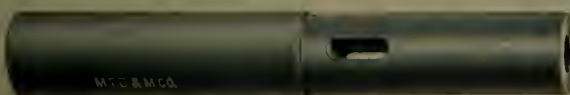
## Straight Shank Drills.

Diameter of Drills.	Length in Inches	Price Per Dozen.	Price Each.
1/16	2 1/2	\$1 00	\$0 09
5/64	2 5/8	1 10	0 10
3/32	2 3/4	1 20	0 11
7/64	2 7/8	1 30	0 12
1/8	3	1 45	0 13
9/64	3 1/8	1 60	0 15
5/32	3 1/4	1 80	0 16
11/64	3 3/8	2 00	0 18
3/16	3 1/2	2 20	0 20
13/64	3 5/8	2 40	0 21
7/32	3 3/4	2 65	0 23
15/64	3 7/8	2 90	0 26
1/4	4	3 15	0 28
17/64	4 1/8	3 40	0 30
9/32	4 1/4	3 65	0 32
19/64	4 3/8	3 90	0 35
5/16	4 1/2	4 20	0 37
21/64	4 5/8	4 50	0 40
11/32	4 3/4	4 80	0 42
23/64	4 7/8	5 10	0 45
3/8	5	5 40	0 48
25/64	5 1/8	5 70	0 50
13/32	5 1/4	6 00	0 53
27/64	5 3/8	6 40	0 55
7/16	5 1/2	6 80	0 59
29/64	5 5/8	7 20	0 63
15/32	5 3/4	7 50	0 65
31/64	5 7/8	7 75	0 67
1/2	6	8 00	0 70

## Drills in Sets.

No. 1.	Set Taper Shank, 1/4 to 1 in., varying by 16ths	Per Set, \$ 20 00
" 2.	" " " 3/8 " 1 1/4 " " 16ths	" " 34 50
" 3.	" " " 3/8 " 3/4 " by 32ds, 3/4 to 1 1/4 in. by 16ths	" " 42 00
" 4.	" " " 3/8 " 3/4 " " 32ds, 3/4 " 2 " 16ths	" " 131 00
" 5.	Set Straight Shanks, 1/16 to 1/2 in., by 64ths, mounted	" " 10 00
" 6.	Set Straight Shanks, 1/16 to 1/2 in., by 32ds, mounted	" " 5 40
" 7.	Set from 60 to 3/8 in., mounted	" " 9 90
" 8.	Set Steel Wire Gauge, from No. 1 to 60, mounted	" " 8 10
" 9.	Half Set, alternate Nos. from 1 to 60, mounted	" " 4 30
" 10.	Jewelers' Set of 36 Drills, No. 30 (1/8 in.) to No. 65, Steel wire Gauge, mounted in a Mahogany Case with Cap	" " 4 25
" 11.	Set of Taper Shank, 3/8 to 2 in. by 32ds	" " 240 00
" 12.	Set Machine Bits, 1/8 in. to 1/2 in., mounted, varying by 32ds	" " 7 00

## Sockets for Taper Shank Drills.



MORSE TAPER SOCKET.					
No. 1.	Holds	1/4 to	19/32 in. inclusive		\$1 20
" 2.	"	5/8 "	29/32 "		1 80
" 3.	"	15/16 "	1 1/4 "		2 50
" 4.	"	1 9/32 "	2 "		4 00
" 5.	"	2 1/16 "	2 1/2 "		7 50

## "Morse" Twist Drills.

### "Stubs" Steel Wire Gauge Drills.



Numbers by Gauge.	Length in Inches.	Price. Per Dozen.	Price, Each.	Numbers by Gauge.	Length in Inches.	Price. Per Dozen.	Price, Each.
1 to 5	4	\$2 35	\$0 22	31 to 35	2 5/8	\$1 40	\$0 14
6 " 10	3 11/16	2 25	0 21	36 " 40	2 7/16	1 25	0 12
11 " 15	3 1/2	2 10	0 20	41 " 45	2 1/4	1 10	0 10
16 " 20	3 1/4	1 95	0 19	46 " 50	2 1/16	0 95	0 09
21 " 25	3 1/16	1 75	0 17	51 " 65	1 3/4	0 95	0 09
26 " 30	2 13/16	1 55	0 15				

### Taper Square Shank Drills Fitting Ratchets.



Price, with Shanks  $\frac{3}{8}$  by  $\frac{3}{8}$  Inch and  $1\frac{1}{2}$  Inch Long, and Shanks  $\frac{1}{2}$  by  $\frac{1}{2}$  Inch and  $1\frac{1}{4}$  Inch Long.

Diameter.	Price.	Diameter.	Price.	Diameter.	Price.
1/4 Inch.	\$1 00	7/16 Inch.	\$1 25	3/4 Inch.	\$1 55
9/32 "	1 05	15/32 "	1 30	13/16 "	1 75
5/16 "	1 10	1/2 "	1 30	7/8 "	2 05
11/32 "	1 15	9/16 "	1 35	15/16 "	2 30
3/8 "	1 20	5/8 "	1 40	1 "	2 55
13/32 "	1 25	11/16 "	1 45	1 1/8 "	3 10

### Bit Stock Drills.



Price, per Set, 1/16 to 1/4 by 32ds, 1/4 to 3/8 by 16ths, Boxed

\$2 60

Diameter.	Price, per Dozen.	Price, Each.	Diameter.	Price, per Dozen.	Price, Each.
1/16 Inch.	\$1 50	\$0 14	5/16 Inch.	\$ 5 40	\$0 48
3/32 "	1 65	0 16	11/32 "	6 30	0 54
1/8 "	2 10	0 20	3/8 "	7 20	0 62
5/32 "	2 60	0 24	13/32 "	8 00	0 68
3/16 "	3 10	0 29	7/16 "	8 80	0 75
7/32 "	3 60	0 33	15/32 "	9 60	0 82
1/4 "	4 10	0 38	1/2 "	10 30	0 87
9/32 "	4 70	0 43	17/32 "	11 00	0 92

### Drills for Blacksmiths' Drilling Machines.



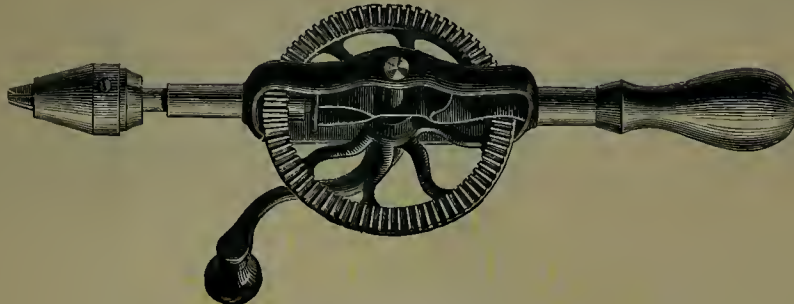
These Drills have Shanks 2 1/4 Inch Long and about 41/64 Inch Diameter.

Diameter.	Length	Price, Each.	Diameter.	Length.	Price, Each.
1/8 Inch.	6 Inch.	\$0 55	3/4 Inch.	6 Inch.	\$1 25
3/16 "	6 "	0 60	13/16 "	6 "	1 35
1/4 "	6 "	0 70	7/8 "	6 "	1 45
5/16 "	6 "	0 75	15/16 "	6 "	1 60
3/8 "	6 "	0 85	1 "	6 "	1 80
7/16 "	6 "	0 90	1 1/8 "	6 "	2 20
1/2 "	6 "	0 95	1 3/16 "	6 "	3 00
9/16 "	6 "	1 00	1 1/4 "	6 "	3 25
5/8 "	6 "	1 05	1 3/8 "	6 "	3 60
11/16 "	6 "	1 15	1 1/2 "	6 "	4 25

## Hand Drills.



No. 1.



No. 2.

No. 1.	Single Gear, Hollow Handle, Nickel-Plated	Each, \$1 25
No. 1 B.	Double Gear, (otherwise same as No. 1)	" 1 50
No. 2.	Single Gear, Hollow Handle, Nickel-Plated, will Drill $\frac{1}{4}$ Inch	" 2 50

Six Drill Points with each of the above Hand Drills.

## "Chicopee" Hand Drills.

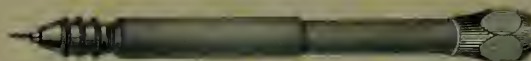
FOR METAL OR WOOD.



No. 1.



No. 2.

No. 3. Spring Drill,  $\frac{1}{4}$  Size.

No. 1 and 2. These Drills revolve in the same direction with either Backward or Forward motion of the Hand.

No. 1.	With Chuck	Each, \$2 60
No. 2.	" "	" 2 50
No. 3.	Spring Drill with Chuck	" 2 60

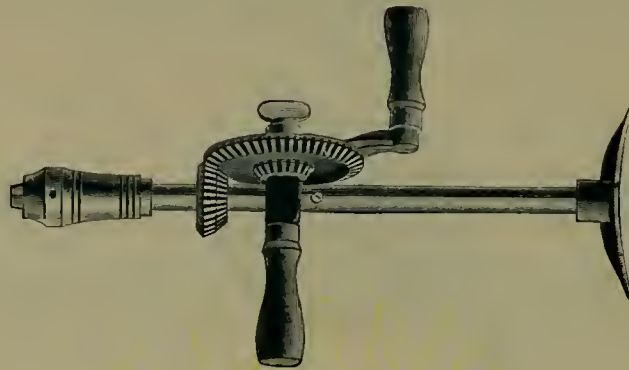
## Breast Drills.



No. 8.	Strong, Well-made Drill. Double Gear	Each, \$4 00
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## Breast Drills.



No. 10. Wrought Iron Stock, Two-Speed Drill, with Chuck

Each, \$3 00

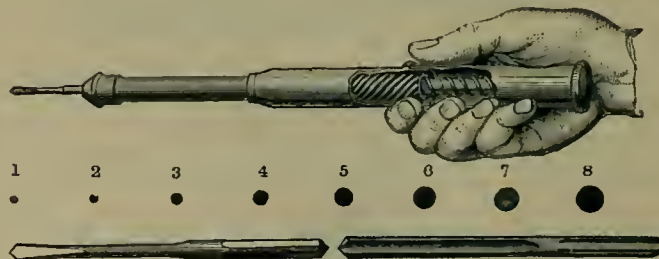
### BREAST DRILLS.



No. 12. Malleable Iron Stock, Two-Speed Drill, with Chuck

Each, \$2 50

### AUTOMATIC BORING TOOLS.



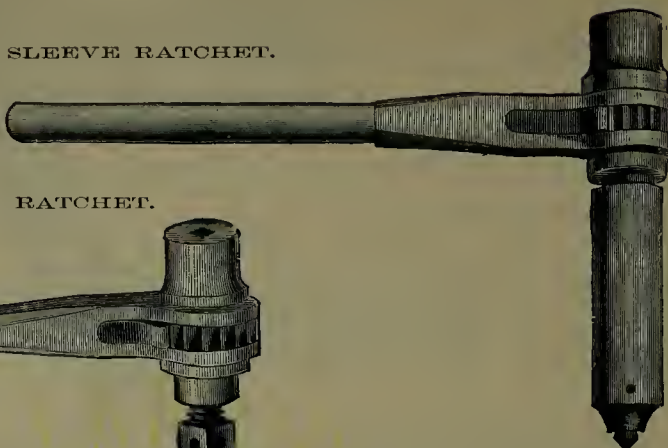
This instrument is designed for BORING WOOD for various purposes, such as for setting Brads, Finishing Nails, Screws, etc.

Price, with Tools Assorted, Nos. 1 to 8

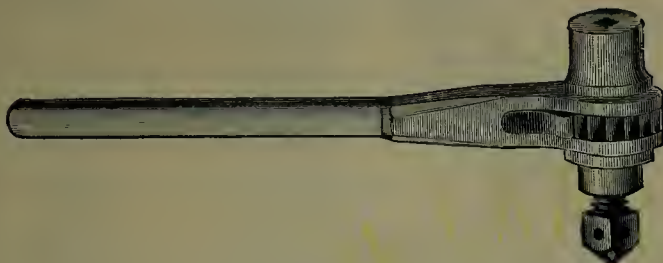
Each, \$2 00

## "Packer's" Ratchet Drills.

SLEEVE RATCHET.



BOILER-MAKERS' RATCHET.



These Ratchets are made with Square Threaded Screws and Steel-Hardened Points.

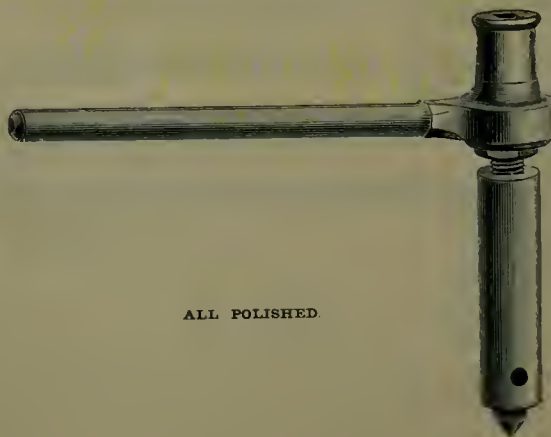
### Sleeve Ratchet Drills.

No. 1.	10 Inch Handle	\$10 50	No. 4.	18 Inch Handle	\$19 00
No. 2.	12 " "	13 50	No. 5.	24 " "	23 00
No. 3.	16 " "	16 00			

### Boiler-Makers' Ratchet Drills.

No. 1.	10 Inch Handle	\$9 00	No. 2.	12 Inch Handle	\$10 50
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## "Standard" Ratchet Drills.

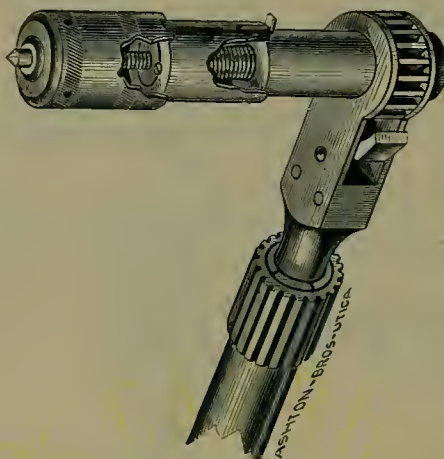


ALL POLISHED

No. 1.	Lever, 12 Inches	Each, \$6 00
No. 2.	" 15 "	" 7 00
No. 3.	" 20 "	" 8 00

## "Steber's" Patent Ratchet Drill.

PATENTED FEBRUARY 4, 1879.

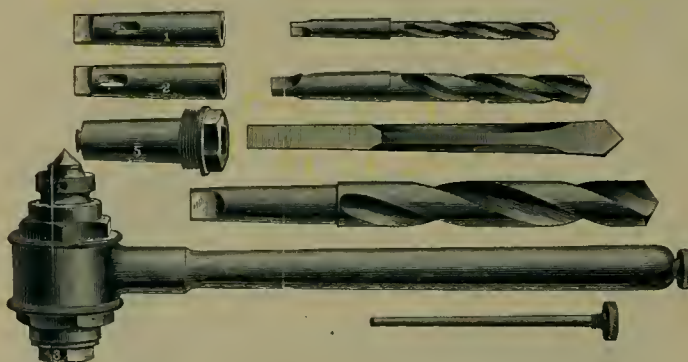


This Ratchet is so constructed as to make it the shortest and at the same time it will drill as deep as the largest of ordinary Ratchets now in use. It needs no blocking, as it can be extended to accommodate for long or short drills. The Ratchets are made of Stubb's Best Steel and hardened, making them the strongest, most durable, and cheapest ratchet ever made for service. Just the thing for Boiler-makers, and the best article for Railroad men, Engineers and Machinists of all kinds. It will do better and truer work than any other Ratchet manufactured. The working Screws are all inside, and so protected by sleeves as to make it impossible for it to become bent or strained in any manner.

### Price.

No. 1.	(3	Inch closed, will Drill $2\frac{1}{4}$ Inch deep)	Handle extends from 10 to 15 Inch	Each, \$14 50
No. 2.	(4	" " " " $3\frac{1}{2}$ " " )	" " " 12 " 18 "	" 17 50
No. 3.	( $5\frac{1}{2}$	" " " " $4\frac{1}{4}$ " " )	" " " 15 " 23 "	" 20 00
No. 1.	With Ordinary Handles			Each, \$13 00
No. 2.	" " "			" 15 00
No. 3.	" " "			" 18 00

## "Renshaw's" Ratchet Drill.



The handle, 15 inches long, is drop-forged, of tough wrought iron. The spindle, of steel, has substantial ratchet teeth cut in its periphery, engaging with a pawl lodged in the handle, which covers both pawl and ratchet, and protects them from dirt. The feed-screw is of steel, 3 inches long,  $1\frac{7}{16}$  inches diameter, and hollow; being hardened, it is not liable to injury in ordinary use. It gives the drill large capacity in small compass, the length from top of feed-screw to bottom of drill-collet being only 5 inches. By transferring the collet and feed-screw, as arranged for right-hand drilling, to opposite ends of the spindle, the ratchet may be used for left-hand drilling, a feature that practical men will appreciate. Four sockets are furnished with each drill. Nos. 1, 2 and 3 corresponds in size of holes with sockets of same numbers made by the Morse Twist Drill and Machine Company, for drills  $\frac{1}{4}$  to  $1\frac{1}{4}$  inches diameter, with shanks of the Morse Standard Taper. Socket No. 5 is for square shank drills of any size between  $\frac{1}{2}$  to  $1\frac{1}{2}$  inches diameter, which are the extreme sizes that this ratchet is adapted to carry. No. 3 and No. 5 sockets are held in the spindle by screw thread. No. 1 and 2 sockets have taper shanks fitting No. 3 socket, and can be forced out of position by turning in the feed-screw until it bears upon their end. The feed-rod, when not in use, is placed in the handle and held by screw thread. The sockets can be utilized in any drilling spindle that may be fitted to receive them.

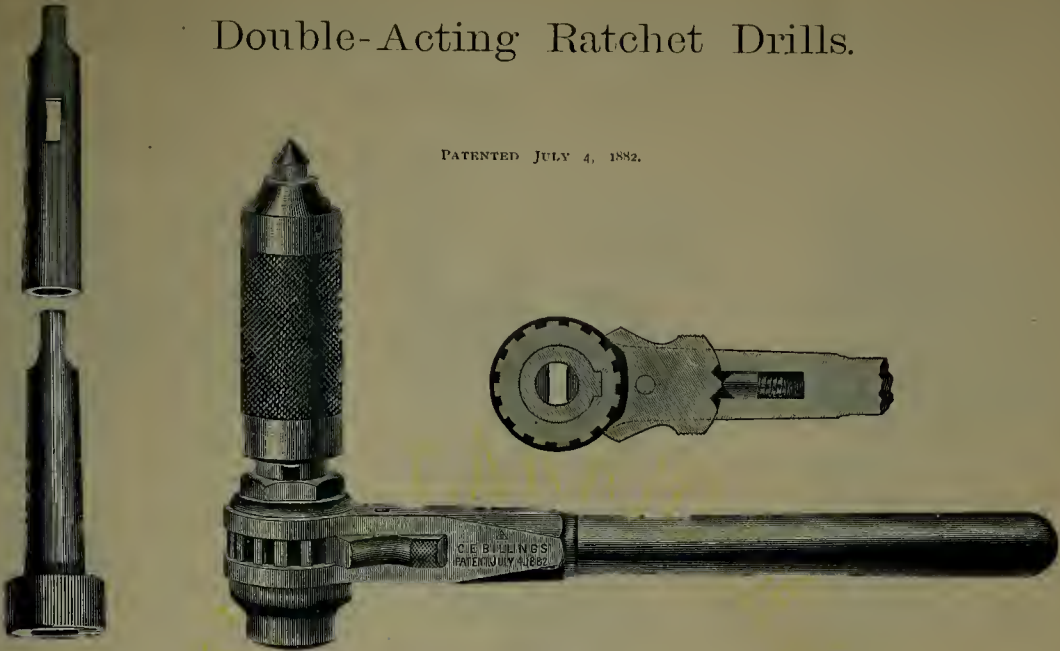
Price of Ratchet Complete, Without Drills

\$25 00



# Double-Acting Ratchet Drills.

PATENTED JULY 4, 1882.

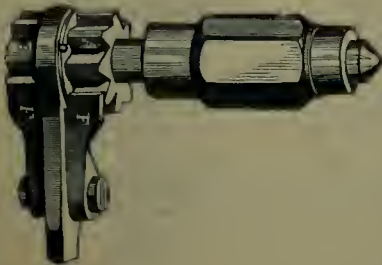


These Drills are made in two sizes. They are Drop-Forged of the best bar iron and steel for the purpose, and are made to use Morse Taper Shank Twist Drill, also provided with Socket, with square hole for Square Shank Drill. This Drill can be changed from Right-hand to Left-hand Drilling by simply moving the pawl to right or left. The Sockets furnished with the Drill can be utilized in any drilling spindle that may be fitted to receive them.

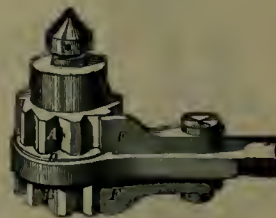
## Price, without Drills.

No. 1. 10 3/4 inch Handle with one Socket taking Morse Taper Shank Drills, from 1/4 inch to 29/32 inch inclusive, and one Socket taking Flat Drills	\$14 00
No. 2. 13 3/4 inch Handle, with Sockets taking Morse Taper Shank Drills, from 1/4 inch to 1 1/4 inch inclusive, and one Socket for Flat Drills	18 25

## "Weston's" Ratchet Drills.



Style "A"

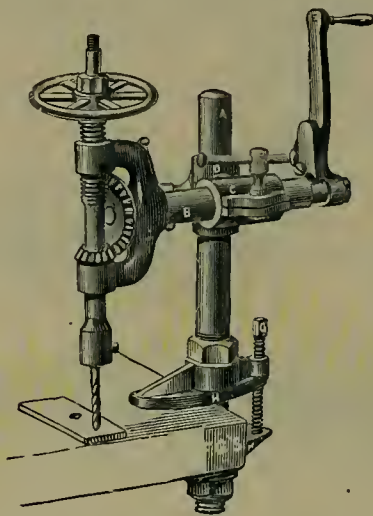


Style "B"

### PRICES AND DESCRIPTION.

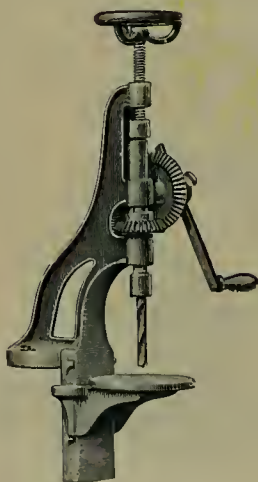
"A." Drill for General Purposes, Length of Lever 12 Inch	Each, \$8 00
" " " " " " " " 14 "	" 8 50
"B." Boiler Ratchet for Confined Places, Length of Lever 14 Inch, Space required 3 1/2 Inch, Feeds 5/8 Inch	" 8 00

## The Improved Patent Universal Angular and Ratchet Drilling Machine.



No. 1.	Weight, 26 lbs,	Drills up to $\frac{5}{8}$ Inch Hole	\$25 00
No. 2.	52 "	" " " 1 "	30 00
No. 3.	106 "	" " " 1½ "	45 00

## Upright Bench Drills.



No. 8.



No. 9.

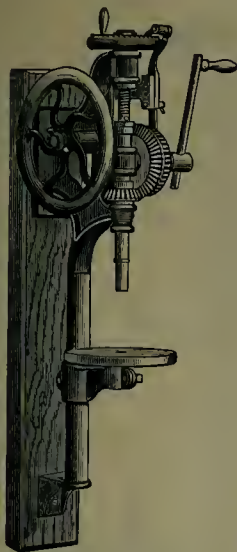
No. 8.	Drills $\frac{1}{8}$ to $\frac{3}{4}$ Inch Hole, Weighs 55 lbs	\$12 00
No. 9.	" $\frac{1}{8}$ " $\frac{7}{8}$ " " " 75 "	15 00

PRICES GIVEN ON ALL ABOVE ARE FOR MACHINES ONLY. TWIST DRILLS ARE EXTRA.

## Upright Self-Feeding Drills.

### No. 0.

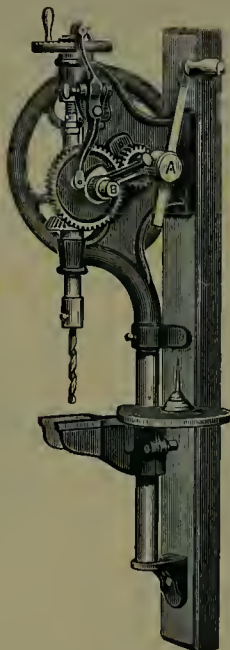
Suitable for Drills from  
1/16 to 3/8 Inch.



Length, 26 Inches.  
Weight, 30 lbs.

### No. 1 1/2.

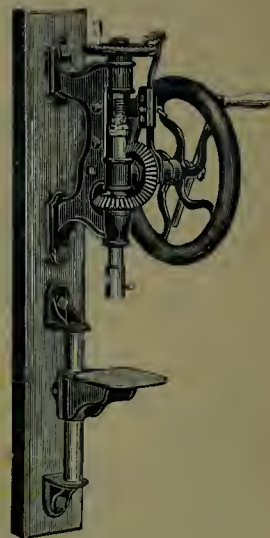
Suitable for Drills from 1/8 to 1 Inch.



Length, 44 Inches. Weight, 120 lbs.

### No. 1.

Suitable for Drills from  
1/8 to 3/4 Inch.



Length, 42 Inches.  
Weight, 98 lbs.

### PRICES AND DESCRIPTION.

#### No. 0.

The above is fitted for a No. 2 Beach Chuck, or can be used without.

Price, \$20 00

#### No. 1.

Has 3 Changes of Automatic Self-Feed Instantly Adjusted from Fine to Coarse.

Price, \$28 00

#### No. 1 1/2.

This machine has nearly a continuous feed, which may be quickly adjusted by a Thumb-Screw to three rates of speed. A fast or slow motion may be given the Drill by changing the handle from shaft **A** to shaft **B**, as desired by the operator.

By this arrangement the capacity of the Drill has been increased nearly one-third.

Price, \$34 00

Arranged for Power with 1 Pulley in place of Balance Wheel without extra charge.

One Pulley, with Balance Wheel, \$1 50 Extra.

TWIST DRILLS ARE NOT INCLUDED IN THE ABOVE PRICES.



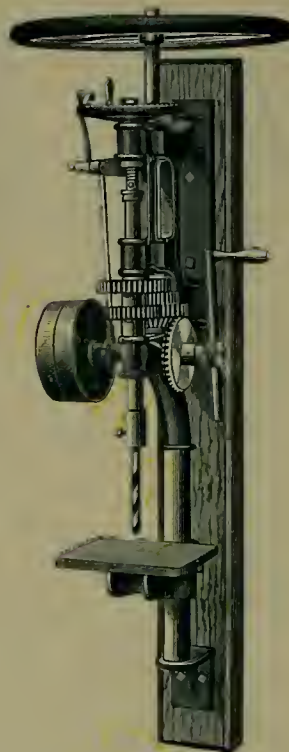
## Upright Self-Feeding Drills.

No. 2.

Suitable for Drills from  $\frac{1}{8}$  to  $1\frac{1}{4}$  Inch.

Length, 54 Inch. Weight, 160 Lbs.

No. 3.

Suitable for Drills from  $\frac{1}{4}$  to  $1\frac{1}{2}$  Inch.

Length, 65 Inch. Weight, 250 Lbs.

### PRICES AND DESCRIPTION.

#### No. 2.

No. 2 is similar to No. 1  $\frac{1}{2}$  on preceding page, and has all the late improvements. The Swing Table as applied to these machines will be found useful in many ways, and much more convenient than the old method of driving them in and out with a hammer, thereby running the risk of breaking the foot-piece. It is out of the way when not in use, and may be quickly swung into position when wanted.

Price, \$48 00

Arranged for Power with Pulleys, \$52 00

Arranged for Power with one Pulley in place of Balance Wheel without extra charge.

One Pulley, with Balance Wheel, \$1 50 Extra.

#### No. 3.

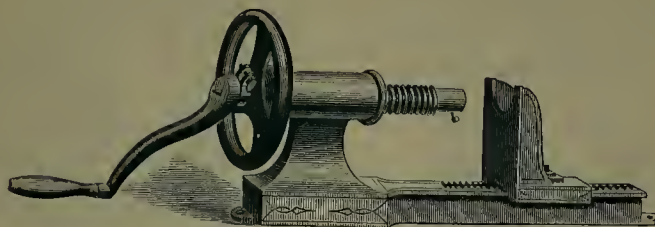
No. 3 has cut gears so arranged that a quick or slow motion may be given the Drill as desired for light and heavy work, making it a desirable tool for the machine shop or factory, answering as well as higher cost machines.

Can be used for either Hand or Power.

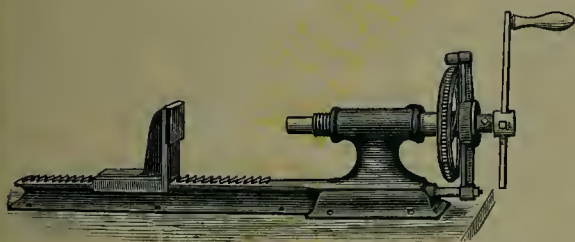
Price, with Pulleys, \$79 00

TWIST DRILLS ARE NOT INCLUDED IN THE ABOVE PRICES.

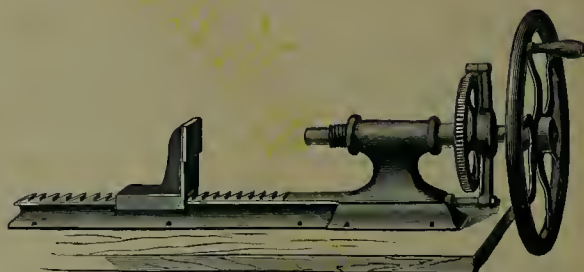
## Horizontal Drills.



No. 4. Style of No. 0.



No. 2. Plain.



No. 5. With Fly Wheel.

## PRICES AND DESCRIPTION.

No. 0.	Plain Finished Japanned Drill, 26 Inches Long	Each, \$ 4 00
No. 4.	Well Finished Drill, 26 Inches Long	" 6 00
No. 2.	Ratchet Feed, 33 Inches Long, Plain	" 10 00
No. 2.	" " 33 " " With Fly Wheel	" 13 00
No. 5.	" " 44 " " Plain	" 17 00
No. 5.	" " 44 " " With Fly Wheel	" 20 00

Prices given are for Machines only. Twist Drills are extra.

## Twist Drills, 5/8 Shank.

Inch, 1/8	3/16	1/4	5/16	3/8	7/16	1/2
Each, \$0 55	0 60	0 70	0 75	0 85	0 90	0 95
Inch, 9/16	5/8	3/4	7/8	1	1 1/8	1 1/2
Each, \$1 00	1 05	1 25	1 45	1 80	2 20	4 25

# The "Sweetland" Chuck.

PATENTED FEBRUARY 4th, 1879.

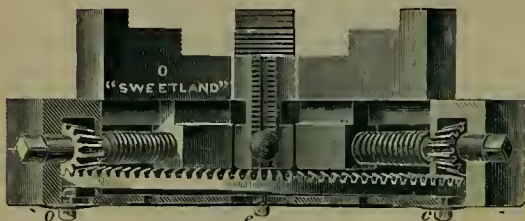
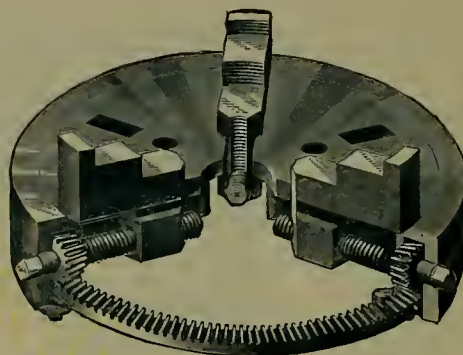


Fig. 1. Common Jaw.



Front Sectional View of Chuck.

Fig. 1 represents the entire mechanism of the SWEETLAND CHUCK, showing plainly the circular rack and pinion screws, connected at **o**, and disconnected at **c**. The recess in back plate is made deep enough to disconnect the gearing. In the recess, and underneath the rack, lie the cam blocks, beveled to correspond with the continuous bevel recess in the back of rack.

These bevel cam blocks have radial motion, and when moved to the outer portion of the recess and rack they connect the gearing, making the Chuck universal; and when they are moved inward, allow the rack to disengage from the pinion, thus making each screw independent.

The cam blocks are held in place by the convex spring washers, **o**, **e**, **c**, which allow them to slide to or from the center without disturbing the nuts, the friction being sufficient to hold them in place.

The jaws have a long bite on the inner end, are strong in the nut, which has a full thread, and can be taken out of the Chuck for the purpose of cleaning, without removing it from the lathe. They are ground perfectly true on face and bite, also outer end, after being case-hardened.

In general construction it resembles the Universal Screw Chuck, the jaws being moved to and from the center, universally, by means of geared screws connected with the circular rack which revolves in a recess in the back plate. The front and back plates are bolted together, thus encasing and protecting the gearing.

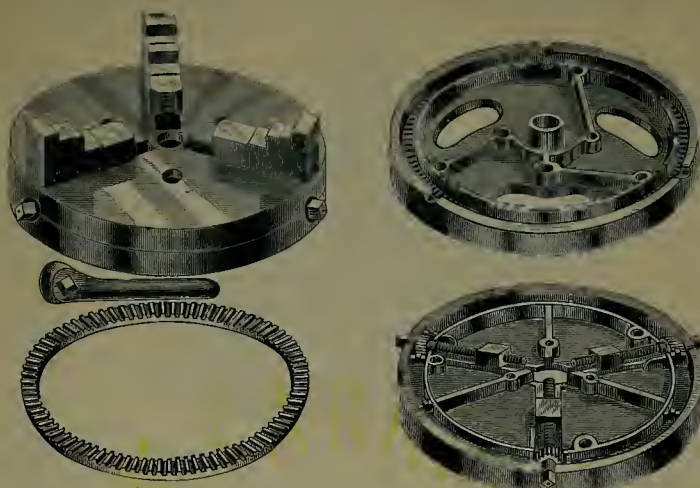
The design of the improvement is to make the Chuck independent as well as universal, and reference to the accompanying engravings illustrates the means employed to attain this object.

## PRICES.

Three Jaws.				Four Jaws.			
6 Inch Diameter and Less			\$ 26 00	6 Inch Diameter			\$32 00
9 " " " "			34 00	9 " " " "			42 00
12 " " " "			44 00	12 " " " "			56 00
15 " " " "			52 00	15 " " " "			64 00
18 " " " "			62 00	18 " " " "			75 00
21 " " " "			80 00	21 " " " "			95 00
24 " " " "			100 00	24 " " " "			120 00
30 " " " "			170 00	30 " " " "			200 00
36 " " " "			230 00				



# The "Horton" Lathe Chuck.



This Cut gives a view of E. HORTON'S Patent Lathe Chuck together and in its parts. The main feature is enclosing the circular wrought-iron rack in the deep groove or recess in the back plate, and then turning the center faces of back and front plates true, which, when bolted together, makes a perfectly tight casing for the gearing, so that no dirt, chips, etc., can possibly get into them to clog and injure the Chuck. When the Rack is taken out, especially from the Four Jaws, it makes a superior independent Jaw Chuck, so that it virtually makes Two Chucks combined in one. The Jaws are made solid, forged of one piece of metal, of the very best quality of wrought-iron, and thoroughly case-hardened with animal coal.

REGULAR AND REVERSE JAW, SAME PRICE.

Three Jaws.				Four Jaws.			
6 Inch Diameter and Less			\$ 26 00	6 Inch Diameter			\$ 32 00
9 " " " "			34 00	9 " " " "			42 00
12 " " " "			44 00	12 " " " "			56 00
15 " " " "			52 00	15 " " " "			64 00
18 " " " "			62 00	18 " " " "			75 00
21 " " " "			80 00	21 " " " "			95 00
24 " " " "			100 00	24 " " " "			120 00
30 " " " "			170 00	30 " " " "			200 00
36 " " " "			230 00				

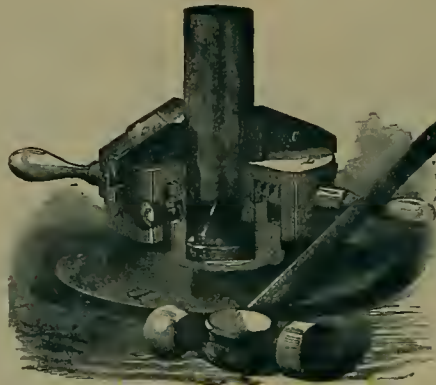
## "CUSHMAN'S" or "THOMPSON & HOLMES" Independent Reversible Four-Jaw Chuck.



This Chuck is well made, and is very strong. Every jaw is reversible. The 15, 18, 21 and 24 inch have slots in the face as shown in the Cut. Key and Bolts furnished with each Chuck.

Diameter. Inches.	Weight. Pounds.	Diameter of Hole. Inches.	Diameter of Face-Plate. Inches.	Price.	Diameter. Inches.	Weight. Pounds.	Diameter of Hole. Inches.	Diameter of Face-Plate. Inches.	Price.
6	11	1 3/4	5 11/16	\$18 00	18	98	4	7 13/16	\$44 00
9	26	1 7/8	5 3/4	23 00	21	121	4	7 13/16	55 00
12	54	3	6 11/16	30 00	24	152	5	8 11/16	65 00
15	66	3 3/16	6 11/16	35 00					

## Improved Centering Chuck.



This is simply a Scroll Chuck with a steel center. It is made to fasten on a bench, and will perfectly center stock from  $\frac{1}{4}$  inch up to  $1\frac{1}{2}$  inch, and will operate quicker and more satisfactory than anything ever yet produced for the purpose. It is always ready for use, is very strong, the base and center being of steel, and will last a lifetime; and, in an ordinary shop, will pay for itself in less than three months. Some shops now have them in every room, and consider them almost indispensable. We furnish it at a very low price in order to bring it within the reach of all, and fully guarantee it in every respect.

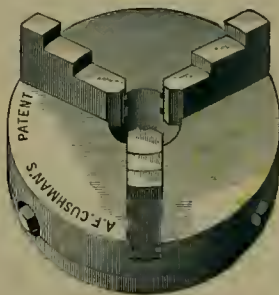
Price, with 3 Jaws

\$11 00

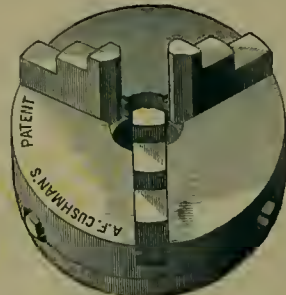
Price, with 4 Jaws

\$12 00

## "Cushman's" Geared Scroll Chuck.



With No. 1 Jaws.



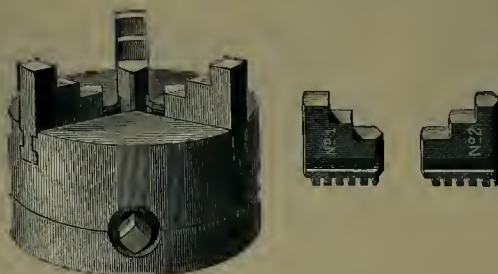
With No. 2 Jaws.

These Chucks are being continually improved, no pains being spared to make them first-class in every respect. All of them are now made having 3 pinions, an advantage over the old style, as a Chuck so made will outwear any other. It not only makes a handier Chuck to use by having a pinion always within reach, but the Chuck is thus perfectly balanced, an advantage when required for high-speed machines. They are furnished at the same price, however, as formerly charged for those having but 1 pinion. The Shells, up to and including 3 inch, are made of malleable iron. All Pinions and Scrolls are made of steel. All Jaws, up to and including 5 inch, are of steel; the remaining sizes having Jaws of the best wrought iron, thoroughly case-hardened. All Jaws of style No. 2 are ground after being hardened. Key and screws are furnished with each Chuck.

Diameter	Inches,	3	4	5	6
Weight	lbs,	2 1/2	6	10	14
Diameter of Hole	Inches,	5/8	5/8	3/4	1 9/16
Diameter of Face-Plate	"	2 7/8	3 1/16	3 3/4	4 3/4
Price	Each,	\$10 00	12 00	15 00	18 00

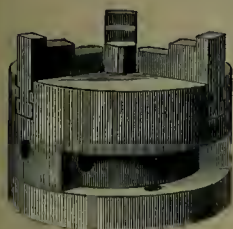
## "Cushman's" Amateur Geared Chuck.

TWO INCH. FOR FOOT LATHES AND SMALL WORK.



Can be fitted with ease to any Lathe or Drill Machine, either with a Taper Plug or a Face Plate. With No. 2 Jaw it holds the Drills from  $\frac{1}{16}$  to  $\frac{5}{8}$ , and with No. 1 Jaw a piece can be held by the outside as large as the diameter of the Chuck. The shell is of malleable iron, the working parts are of steel, and the Chucks are made in the most thorough manner. When ordering, be particular and state if you want No. 1, No. 2, or both sets of Jaws.

Price with No. 1 or No. 2 Jaws	\$6 00
Price with Two Sets of Jaws	7 50

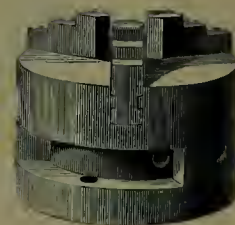


No. 1.

## "The Hartford" Lever Chuck.

Diameter. Inches.	Price with One Set of Jaws.	Price with Two Sets of Jaws.
2	\$4 00	\$5 50
3	5 00	6 50
4	6 00	7 50

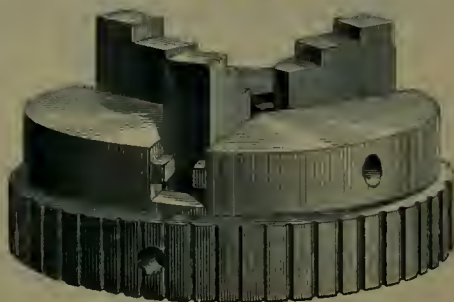
State in your order if you want No. 1, No. 2, or Two Sets of Jaws.



No. 2.

## "Cushman's" Amateur Lever Chuck.

ESPECIALLY FOR LIGHT WORK.



But one size made, 4 inches in diameter. It weighs 3 pounds, and has a hole entirely through. It is well made of good material. Is attached to Lathe by Face Plate,  $2\frac{5}{8}$  inches in diameter, or it can be screwed on the spindle. Levers and screws furnished with each Chuck. Always specify the style of Jaws wanted, otherwise No. 1 Jaws will be sent.

Price, with Two Sets of Jaws	\$8 00
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## The Improved "Choice" Chuck.



These Chucks have been greatly improved, so that they are the best Chuck in the market at the price offered. They will hold drills from the smallest to 5/8 inch diameter. Dealers are authorized to warrant them as to accuracy and durability.

Price, including Lever . . . . . \$4 00

## The "Peerless" Chuck.

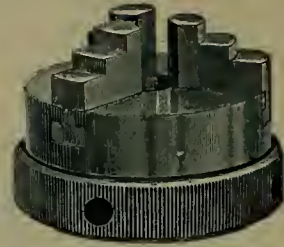


This Chuck is strong, well made, and durable.

Holds from 0 to 1/2 Inch.

Price . . . . . \$4 00

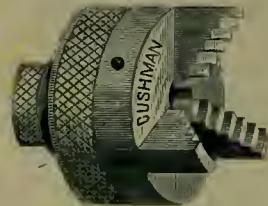
## Hand and Lever Chucks.



This Chuck is a general favorite where a light, quick-running Chuck is desired. It is attached to lathes by plug center. This style has two sets of Jaws, Regular and Reverse.

2 Inches, Price . . . . . \$6 00

## Jewelers' Lathe Chucks.



DIAMETER TWO INCHES.

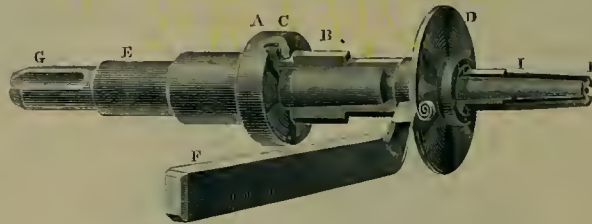
This Chuck is the same every way as the Peerless Drill Chuck, only the Jaws are made especially for Watch and Clock Makers' and Repairers' use.

Extra pairs are taken to have this Chuck perfectly fitted and to run true.

They have been in use some time, and in no instance have parties been dissatisfied with them.

Price . . . . . \$4 50

## Lecount's New Expanding Mandrel.



AMATEUR'S SIZE.

Takes anything from 3/8 to 1 inch, inclusive. This tool is steel, well made, is simple, substantial, cheap and useful.

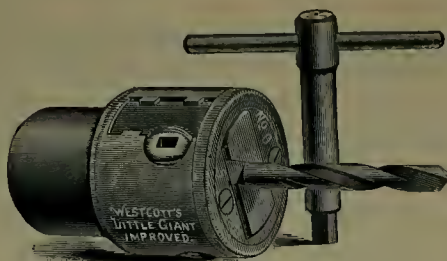
## Directions.

To tighten the work, drive with a copper hammer, or a piece of soft iron or brass, on the large end **G** (not too hard); to loosen, on small end **H**.

**G** is the end where the dog is attached; **E** is the body of the Mandrel; **A** is the sleeve that draws up an incline in the body, **E**; the 3 keys, **B**; **C** is the head of the key **B**, that is held in an annular recess turned in the sleeve, **A**; the key, **B**, is gibbed on the under side and fits in the groove, **I**, which are made to match the gibbed keys, **B**; **H** represents the end of Mandrel and the 3 grooves, **I**, and the center of the Mandrel; **D** represents the object to be turned, and **F**, the cutting tool.

Price . . . . . \$5 00

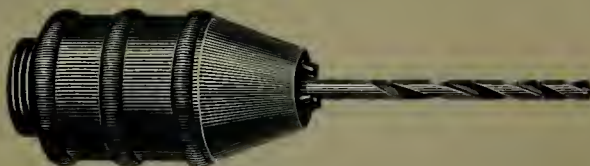
## "Little Giant" Improved Drill Chuck.



This is a very strong and durable Chuck.

No. 1.	2 3/4 Inches in Diameter, Holds from 0 to 5/8 Inch	Each, \$ 9 00
No. 2.	3 1/2 Inches in Diameter, Holds from 0 to 1 Inch	" 10 00

## "Beach" Patent Drill Chuck.



No. 0	Holds from 0 to 1/8	Each, \$ 8 00
No. 1	" " 0 " 1/4	" 8 00
No. 2	" " 0 " 3/8	" 8 50
No. 3	" " 1/16 " 1/2	" 10 00
No. 4	" " 3/16 " 5/8	" 11 00

## Trump Chuck.

Patented November 14, 1876.

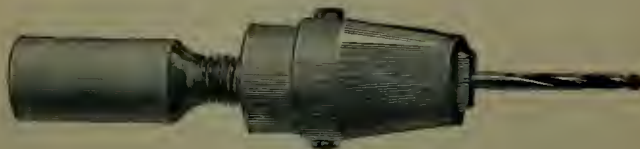


A Self-Centering Three-Jawed STEEL CHUCK, Carefully Made, Durable and Convenient.

For accuracy and effectiveness they are equal to the best, and because of their simplicity are manufactured at one half of the cost of the cheapest. Suitable to hold Drills 1/4 inch and smaller.

Price, with Shank 4 1/64, fitted for Upright Drilling Machines	Each, \$3 50
Price of Extra Shells or Caps	" 0 75

## "Star" Chuck.



These Chucks are simple in construction, strong and durable, and are warranted to hold the Morse Twist Drills firmly, and without danger of breaking. The shanks are centered, so that they may be fitted to any lathe desired.

The above cut represents No. 1, full size.

No. 1	Holds from 1/64 to 1/8 Inch	Each, \$1 50
No. 2	Holds from 1/32 to 1/4 Inch	" 2 00

### "Disston's" Screw Drivers.



Steel Blades, Forged, Polished Handles, Solid Ferrule.

Inch,	2	3	4	5	6	7	8	9	10	12
Per Dozen,	\$1 50	1 75	2 25	2 75	3 00	3 50	4 00	5 00	6 00	6 75

### "Gay & Parsons" Patent Ratchet Screw Drivers.



Inch,	4	5	6	8
Per Dozen,	\$9 00	10 20	12 00	13 50

### "Billings & Spencer's" Screw Drivers.



Drop-Forged from the Best Cast Steel, with Rosewood Handles. Suitable for Gunsmiths' use.

4 Inch Blades, by 1/8, 1/4, 5/16 and 3/8 Inch Points	Per Dozen, \$4 50
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### "Champion" Screw Drivers.

Patented May 15, 1877, and April 29, 1879.



Solid Bolster and Fluted Handles. Hand-Forged.

Inch,	3	4	5	6
Per Dozen,	\$3 50	4 25	5 00	6 00

### Sewing Machine Screw Drivers.

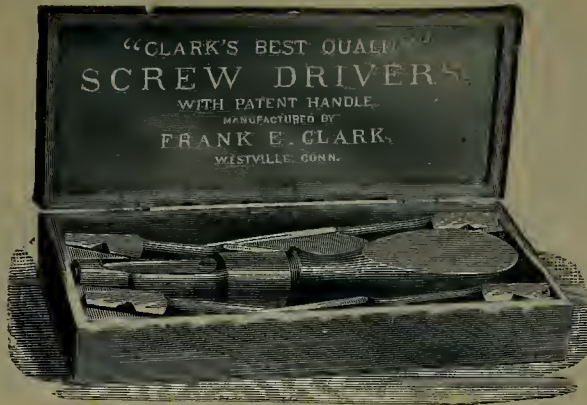


Beech Handles	Per Dozen, \$1 00	Black Handles	Per Dozen, \$1 25
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# "Clark's" Screw Drivers.

IN SETS.



With Four Screw Driver Bits and Handle

Per Dozen, \$15 00

## "Eureka" Spiral Screw Driver.

Push on the End of Handle and the Screw goes in.



This cut shows the "Eureka" when not in use.



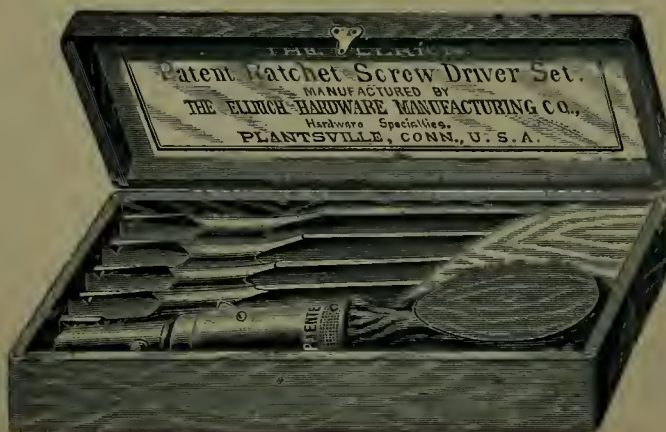
This cut shows the "Eureka" when ready for use.

Per Dozen

\$24 00

## The "Ellrich" Patent Ratchet Screw Drivers.

IN SETS.



Each Set consists of a Rosewood Handle, with patent Ratchet, and four interchangeable Screw Driver Bits enclosed in a neat box.

Per Dozen Sets

\$18 00

## "Allard's" Original Spiral Screw Driver.

"ALLARD'S" ORIGINAL  
SPIRAL  
SCREW DRIVER.

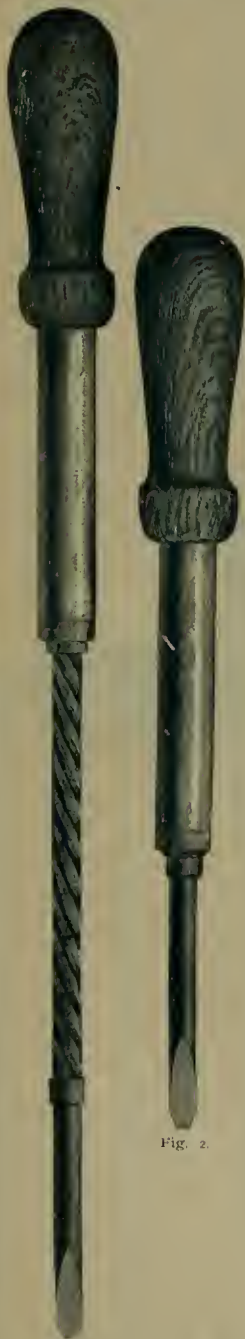


Fig. 1.

Above Cuts about Half Size.

Fig. 1 shows Bit extended.

Fig. 2 shows Bit pushed in.

The greatest Labor-Saving Tool extant. Saves its cost in a very short time.

Best quality Material. Superior Workmanship.

Blades are made of the finest Steel and tempered with great care, so they will not crumble nor turn.

Warranted throughout.

The Screw Driver herewith represented is designed more especially for light and rapid work, and for the use of those mechanics who have large quantities of small screws to drive they are invaluable, saving many times their cost in an incredibly short time.

MACHINISTS, GUN AND LOCKSMITHS, CABINET-MAKERS, COFFIN-MAKERS, CARRIAGE-MAKERS, and all other manufacturers and mechanics who have large numbers of screws to drive will find it a very convenient tool for running in light machine screws.

*No tiresome turning of the hand and twisting of the wrist. Press forward, and the spiral turns the screws.*

Each

\$2 50

## The "Standard" Screw Driver.

The general form and appearance of the Screw Driver is as indicated by the Cuts. It will be seen that the blades are double-ended, and give four sizes of screw drivers, running from  $3/16$  to  $1/2$  inch, a sufficient range for ordinary use. Both blades are inserted at the same time in the handle, which is so arranged that the blade which it is desired to use projects beyond the other. This is accomplished by a construction which permits the idle or upper blade, as shown in the cut, to slip further into the socket than the one in use. When the blades are thus given the desired position they are readily secured in place by the thumb nut shown. In referring to the advantages of this Screw Driver the manufacturers allude to the fact that the four points are of different widths and fit any size of screws, and lay special emphasis on the point that there are no loose parts to mislay or lose, as the blades are never taken out except for changing the points, and must be kept together. That the tool is self-containing and needs no box is also mentioned, as well as the facility with which changes are made in the points to be used. The full length of the Screw Driver is 12 inches, and is described as strong, properly tempered and handsome, being made of the best materials and nickel-plated, with applewood handle.

Each

\$1 00

THE  
"STANDARD"  
SCREW DRIVER.



The "Standard"  
Screw Driver and the two  
Blades to go with it.

## Nippers and Plyers.



No. 61.



No. 72.



No. 73.



No. 96.

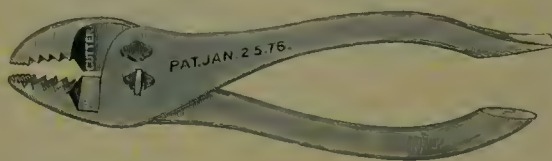


BUTTON'S PLYERS.

No. 100.

Length, Inclusive, to Inches . . . . .			4½	5	6	7	8	9	10
No. 61.	Cutting Nippers	Per Dozen,	\$7 50	7 50	8 50	11 00	14 50	18 50	22 50
No. 72.	Flat Nose Plyers	" "	3 00	3 50	4 00	5 00	6 00	7 50	9 00
No. 73.	Round " "	" "	3 00	3 50	4 00	5 00	6 00	7 50	9 00
No. 96.	Bell Hangers' "	" "	8 00	8 00	9 00	12 00	15 00	19 00	24 00
No. 100.	Wire Cutters and Plyers	" "	10 00	...	12 00	...	15 00	...	24 00

## "Billing's" Patent Combination Plyers.



Gas plyers, wire cutter, wrench, and screw driver combined. Drop-forged from best tool steel, and finished first-class in every respect. A very convenient and useful tool for steam and gas fitters, machinists, tool makers, etc., and a very handy tool for every household. The tool admits of a wide range of adjustment by a quarter turn of the handle, and shifting one hole to the other it changes from size gas burner to 1/2 inch pipe, or from 3/16 inch round to 3/4 inch round or square.

Price

Each, \$1 50

## Burner Plyers.



5 Inch	Per Dozen, \$8 00
6 "	" " 9 00

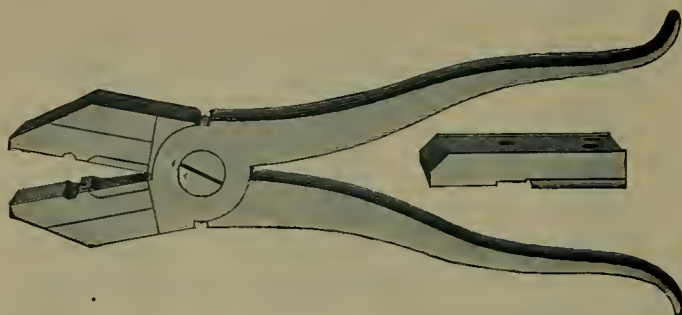
## Gas Plyers.



Size, Inch,	7	8	10	12
Black, per Dozen, \$10 00	12 00	15 00	18 00	
Polished, " "	13 00	16 00	19 00	



## "Hall's" Patent Telegraph Pliers.



INTERCHANGEABLE JAWS.

8 Inch

Per Dozen, \$25 00

## "Hall's" Patent Double Compound Cutting Nippers.

No. 2. 5 Inches Long, Cuts Wire  $\frac{3}{32}$ 

Per Dozen, \$13 50

No. 4. 7 " " " "  $\frac{1}{8}$ 

" " 21 00

No. 6. 8 " " " "  $\frac{3}{16}$ 

" " 30 00

## "P. S. & W. Co." Improved Cutting Nippers.



No. 1. Extra Large Size, 12 Inches Long

Each, \$2 25

No. 2. Large Size, 11 Inches Long

" 2 00

No. 3. Common Size, 10 Inches Long

" 1 50

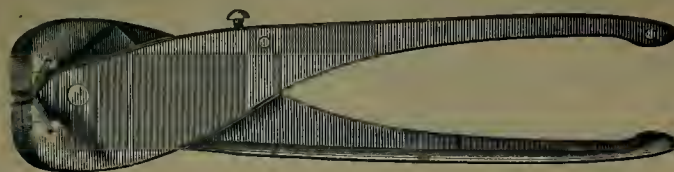
No. 4. Small Size, 9 Inches Long

" 1 40

No. 5. Small Size, 8 Inches Long

" 1 00

## "Windsor" Cutting Nippers.

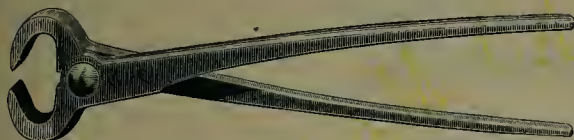


CUTTERS OF THE BEST STEEL.

9 Inches Long, will cut off Wire No. 8

Each, \$1 50

## "Putnam" Hoof Nipper.



SOLID CAST STEEL AND WARRANTED OF EXTRA QUALITY.

14 Inches Long

Per Dozen, \$24 00

## "Globe" Hoof Nipper.



SOLID STEEL.

14 Inches Long

Per Dozen, \$18 00

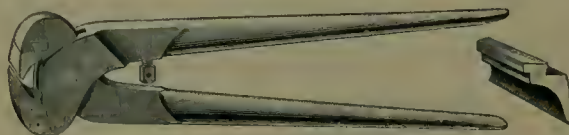
## The "Boss" Wire Cutter.



Will cut off No. 7 Wire with ease

Per Dozen, \$15 00

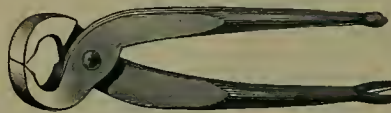
## "Carew's" Patent Wire Cutter.



The advantage of this Cutter over all others is in the ADJUSTABLE JAWS, as seen in cut. When the edges become dull and need grinding, the jaws can easily be driven out, *from the end showing prick marks*, sharpened and replaced; or replaced with new jaws.

Length, Inches,	8	10	12	14
Each,	\$2 00	2 25	2 60	3 00
Extra Jaws, per Pair,	\$0 60	0 65	0 70	0 75

## German Carpenters' Pincers.



Sizes, Inches, 6  
Per Dozen, \$1 75

8  
2 60

10  
4 50

12  
7 00

## "Putnam's" Farriers' Shoeing Pincers.



POLISHED JAWS AND WARRANTED. SOLID HAMMERED CAST STEEL.

Sizes, Inches, 10  
Per Dozen, \$9 00

12  
10 00

14  
15 00

## The "Easy" Bolt and Rivet Clipper.



The No. 1 size we test thoroughly on  $\frac{3}{8}$  inch round iron, and the No. 2 size on  $\frac{1}{2}$  inch round iron, so it will be seen that they are amply strong, as the thread on a bolt cuts off nearly one-third of the stock.

With each one of the "Easy" Clippers will be sent a card of directions, and price list of repairs; also a set of adjusting shims, and a special wrench for the lock-nuts; and each Clipper, with everything belonging to it is packed neatly in a wooden box made expressly for the purpose.

No. 1. For  $\frac{3}{8}$  Inch Bolts and under . . . Per Pair, \$7 50 | No. 2. For  $\frac{1}{2}$  Inch Bolts and under . . . Per Pair, \$9 00

## "Chambers" Bolt and Rivet Clipper.



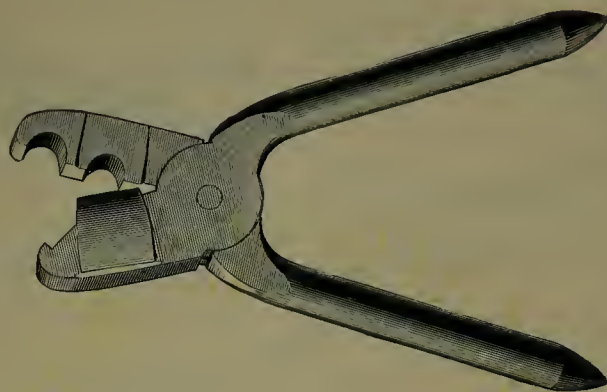
The tools are strong, and designed especially for the use of manufacturers of agricultural implements, car-builders, etc. They cut a Bolt or Rivet  $\frac{1}{8}$  inch above the surface of the work through which it projects, thus always leaving  $\frac{1}{8}$  inch for riveting.

No. 1. For  $\frac{3}{8}$  Inch Bolt or under, for Carriage-Work, Harness-Makers, etc. . . . Each, \$ 7 50  
No. 2. For  $\frac{1}{2}$  Inch Bolt or under, for Wheelwrights, Machinists, Founders, etc. . . . " 9 00  
No. 3. For  $\frac{5}{8}$  Inch Bolt or under, for Car-Builders, and Heavy Work Generally . . . " 12 00



# Patent Fuse and Capping Tool.

FOR GIANT POWDER BLASTING.



PATENTED OCTOBER 23, 1883.

For Cutting and sizing the Fuse to enter the Cap.

For Crimping the Cap on the Fuse to prevent its drawing out.

For Making the Hole in Giant Powder Cartridges to receive the Cap and Fuse.

Perfectly adapted for the several operations required in using Giant Powder Cartridges.

Can be carried in the vest pocket; weighs but two ounces; neatly finished and nickel-plated.

Per Dozen . . . . . \$6 00

## "Giant" Nail Pullers.



No. 1.	Length 18 Inches, Weight 5 Pounds	Per Dozen, \$36 00
No. 2.	" 15 " " 3 "	" " 30 00

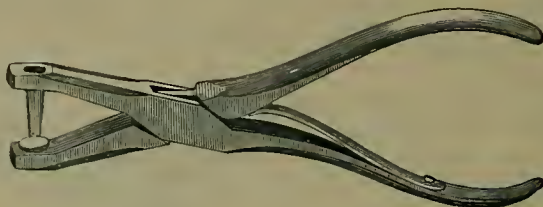
## Spring Punches.

REVOLVING TUBES.



4 Tubes . . . . .	Per Dozen, \$12 00
6 Tubes . . . . .	" " 15 00

FAST TUBE.



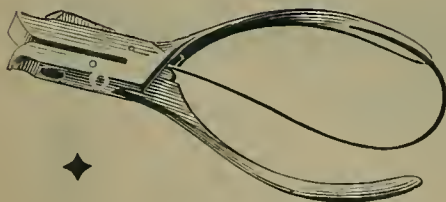
Tubes, Assorted, 6 to 9 . . . . .	Per Dozen, \$7 50
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## Saddlers' Punch Plyers.



No. 110. 6 Inch . . . . .	Per Dozen, \$6 25
No. 112. 6 Inch, 2 Extra Tubes . . . . .	" " 9 00
No. 114. 6 Inch, 3 Extra Tubes . . . . .	" " 18 00

## Conductors' Punches.



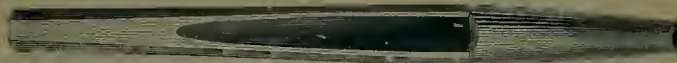
No. 4310.



No. 43.

Nickel-Plated . . . . .	Per Dozen, \$25 00	Fancy Holes . . . . .	Per Dozen, \$13 50
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## Saddlers' Punches.



Full Size Cut of No. 4.



Nos. 1 to 5	6 to 9	10 and 12
Per Dozen, \$2 00	2 25	2 50

## "Bemis & Call Co.'s" Extra Heavy Cast Steel Belt Punches.



Nos. 1 to 5	6 to 10	12	14	16
Per Dozen, \$5 25	5 75	6 25	7 50	8 75

## "Morrill's" Universal Punch.



The Punches are made in two sizes, Nos. 1 and 2, 7 and 9 inches long, and made to punch holes in leather, rubber, cloth, paper, tin, sheet metal, etc., etc. They are invaluable.

### SHARPENING PROCESS.

In long usage the Die and Punch will become dull. By removing the pin that holds the handle in, take out the plunger, then with a screw driver the die is backed out, then by touching them on a grindstone they are sharpened, and by replacing them as before, adjusting the die so as to let the plunger enter 1/64th of an inch into the die, the punch is ready for use.

No. 1	Each, \$1 00	No. 2	Each, \$1 25
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## Packing or Wad Punches.



### CAST STEEL.

Nos. 18 to 10	9	8	7	6	4	1 1/8	1 1/4	1 1/2 Inches.
Per Dozen, \$2 75	4 50	5 50	6 00	6 50	9 00	\$16 50	18 00	21 00

### Diameter of Numbers.

No. 18	10	6	4
Inches, 3/8	3/4	7/8	1



## Octagon Nail Sets.



CAST STEEL.

Assorted Points . . . . . Per Gross, \$10 00

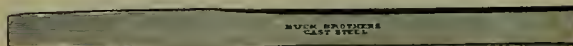
## Square Nail Sets.



CAST STEEL. POLISHED.

Assorted Points . . . . . Per Gross, \$12 00

## "Buck Brothers" Nail Sets.



Best Quality, Assorted . . . . . Per Gross, \$16 00

## "Bellamy &amp; Co.'s" Milled Nail Sets.



THE MILLING PREVENTS SLIPPING.

Square, Assorted Sizes 1/4 Inch to 5/16 . . . . . Per Gross, \$14 00

## Rivet Sets.



CAST STEEL.

Nos. 00 and 0	1 and 2	3 and 4	5 and 6
Per Dozen, \$9 00	7 50	6 00	4 50

EYELET SETS.



1 to 5 Inclusive

Per Dozen, \$7 50

Calking Irons.

BEST CAST STEEL.

Marked: C. DREW & CO., CAST STEEL.



Spike Iron.



Deck or Dumb Iron.



Clearing or Reefing Iron.



New York Pattern.



Crooked or Bent Iron

PRICES.

New York Pattern, 0, 1 and 2 Crease	Per Dozen, \$7 50
Spike Irons	" " 7 00
Reefing Irons	" " 9 00
Crooked or Bent Irons	" " 9 00
Deck or Dumb Irons	" " 8 50

Marline Spikes.



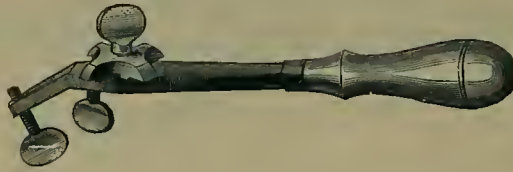
STEEL POINTS. POLISHED.

Sizes, Inches, 10  
Per Dozen, \$4 00

12  
5 00

14  
6 50

## "Stillman's" Saw Sets.



Genuine.

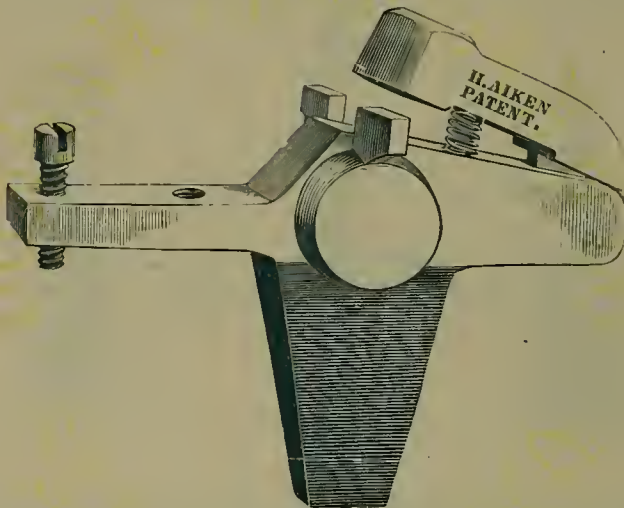
Saw Sets

Per Dozen, \$5 00

Cross Cut Saw Sets

" " 7 75

## "Aiken's" Patent Saw Sets.



Cast Steel.

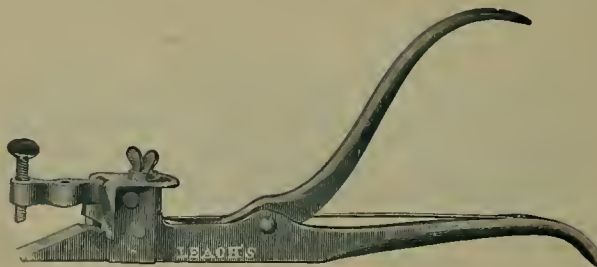
Aiken's Genuine Hammer Saw Sets

Per Dozen, \$13 00

Aiken's Pattern Hammer Saw Sets

" " 9 00

## "Leach's" Patent Saw Sets.



No. 0. 7 Inch Long, Hand

Per Dozen, \$ 8 00

No. 1. 13 Inch Long, Cross Cut

" " 15 00



## "Henry Disston & Sons" Star Saw Set.



We guarantee this tool to do the work for which it is intended, if properly used; if it does not the money will be refunded.  
For Hand, Back, Band, Web, Wood and Small Circular Saws, not thicker than 18 gauge.

Price . . . . . Per Dozen, \$9 00

## "Henry Disston & Sons" Patent Revolving Saw Set.



Large Size . . . . . Per Dozen, \$6 00  
Small Size . . . . . " " 4 00

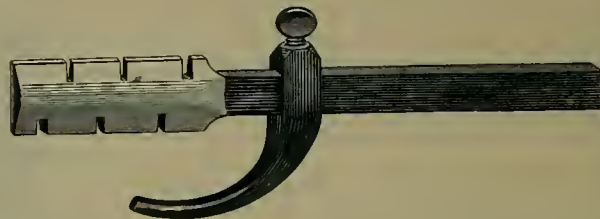
## Plate Saw Sets.



IRON HANDLE. SIX CUTS.

## "B. C. Co." Cross Cut Saw Sets.

WITH GAUGE.



No. 62 . . . . . Per Dozen, \$2 00 | All Steel, 12 Inches Long . . . . . Per Dozen, \$12 00

## "Morrill's" Perfect Saw Sets.



PATENTED FEB. 24, 1880. PATENTED DEC. 14, 1880.

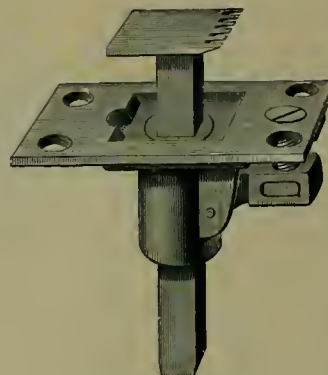
No. 1. For Hand Saws of every Description, from 32 to 16 Gauge.

Each . . . . . \$1 25

No. 4. For Champion or M Tooth Cross Cut, from 22 to 14 Gauge.

Each . . . . . \$2 00

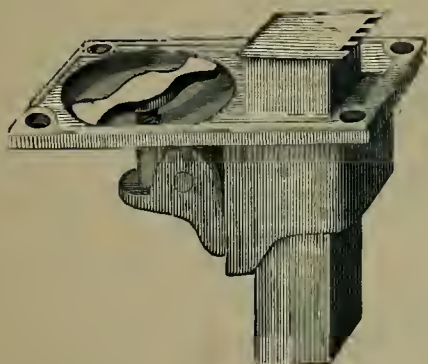
## "Morrill's" Perfect Bench Stop.



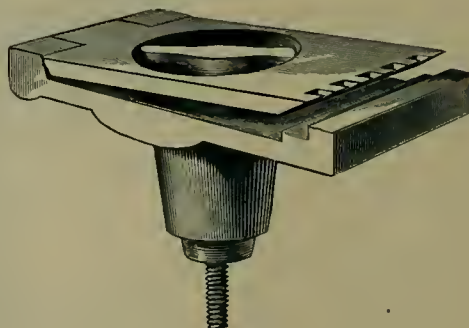
A Substantial and Reliable Bench Stop is a real luxury and a solid comfort to all Wood Workers.

Per Dozen . . . . . \$9 00

## "Weston's" Bench Stops or Hooks.



No. 1.



No. 2.

No. 1 . . . . . Per Dozen, \$10 00 | No. 2 . . . . . Per Dozen, \$8 00

## Lace Leather Cutters.



Will Cut to a uniform width any leather up to  $\frac{1}{8}$  inch in thickness and from  $\frac{3}{16}$  to  $\frac{3}{4}$  wide.

Per Dozen . . . . .

\$6 00

## Double Washer Cutters.



No. 590 . . . . .

Per Dozen, \$18 00



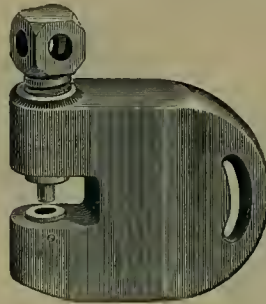
No. 591 . . . . .

Per Dozen, \$12 00



# Boiler-Makers' Screw Punches.

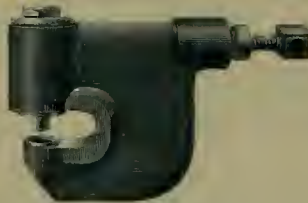
WITH LEVERS COMPLETE.



PUNCHES DO NOT REVOLVE WITH THE SCREW WHEN WORKING.

No. 1. Punches,  $\frac{1}{4}$ ,  $\frac{3}{8}$  and  $\frac{1}{2}$  Inch . . . Price, \$25 00 | No. 2. Punches,  $\frac{1}{2}$ ,  $\frac{5}{8}$  and  $\frac{3}{4}$  Inch . . . Price, \$30 00  
Extra Punches and Dies . . . . . Per Set, \$4 00

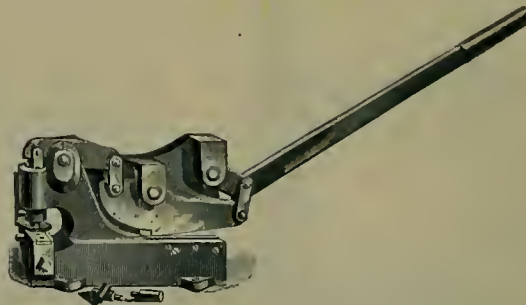
## Hydraulic Screw Punch.



These Punches are very simple in construction, being made without either valves or force pump, and will accomplish twice the amount of work with the labor of one man that can be done with the ordinary screw punch. The strain in working does not have to be resisted, as in the screw punch, by a cross strain on the punch, and the working bar is a  $\frac{3}{4}$  inch steel rod, 3 feet long, instead of a  $1\frac{1}{2}$  inch bar, 6 or more feet long. They are made of an extra quality steel and with best workmanship. An improved packing was introduced in them in 1884, and the jaw made heavier. Turning the screw into the interior chamber forces the Punch ram down. The withdrawal of the screw allows the Punch to be forced back.

	No. 1	2	3
Punches, $\frac{3}{8}$ , $\frac{1}{2}$ and $\frac{5}{8}$		$\frac{1}{2}$ , $\frac{5}{8}$ and $\frac{3}{4}$	$\frac{1}{2}$ , $\frac{3}{8}$ and $\frac{3}{4}$
Iron, Inch,	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$
Center of Punch to Edge of Iron, Inch,	2	$2\frac{5}{8}$	$3\frac{1}{8}$
Weight, lbs,	32	60	90
Price,	\$72 00	104 00	168 00

## Combined Punch and Shears.



For Sheet Metal Workers and Coopers, it is the most complete Combined Punch and Shears in the market.

These machines are so constructed that long cuts can be made full length of sheet. The Dies and Punches are so arranged that they can be easily changed.

We furnish with each machine 3 Punches of different sizes.

No. 1.	Punches $\frac{1}{8}$ Inch Hole in $\frac{1}{8}$ Inch Iron, and Shears Iron	No. 18	Price, \$25 00
No. 2.	" $\frac{3}{16}$ " " " $\frac{3}{16}$ " " " " "	" 17	" 30 00
No. 3.	" $\frac{5}{16}$ " " " $\frac{5}{16}$ " " " " "	" 16	" 35 00



## "Diamond State" Punch and Shear.

This machine is designed for tinners, coppersmiths, heater makers and sheet-metal workers of every kind. It will easily punch No. 12 iron to the center of a 30 inch sheet, and with stay bolts, as shown in cut, will punch No. 8 iron 3 1/4 inches from edge of sheet with ordinary lever sent with each machine. This machine is sufficiently strong to punch that distance from edge a hole nearly or quite through 1/4 inch thickness by using extra length of lever, which will be furnished at additional cost when ordered. In punching thick iron it is necessary to have the Die from 1/64 to 1/32 larger than Punch according to thickness of metal. The Punch and Die are instantly adjusted by first passing the Punch up through the Die Seat and into the Punch Socket, and then dropping the Die into its Seat; the alignment of the holes being so accurate that there is no possibility for careless or incompetent workmen to get them out of line, which would endanger breaking or mutilating the Punch.

The Punch can be furnished singly or with any or all of its attachments as desired. In shearing, work the lever as in punching. For wire cutting, drop the lever straight down to insert wire and pull up. Will shear iron 3/16 inch thick and 3 inches wide, and cut wire 1/4 inch diameter. The drill answers every purpose of a high price drill. For punching heavy work should be set on a bench not exceeding 18 inches high.

This machine is very strong, built of the best material and well fitted. The construction and design is such that it has great wearing qualities with the least possible chance of derangement. Holes for oiling are properly located and oil should be often applied.

Weight of Punch, 140 pounds, with Drill attached, 175 pounds.

Price, Punch and Shears	\$40 00
Drilling Attachment, Extra	10 00

## Punches and Shears.

### "FAULKNER'S" PATENT.

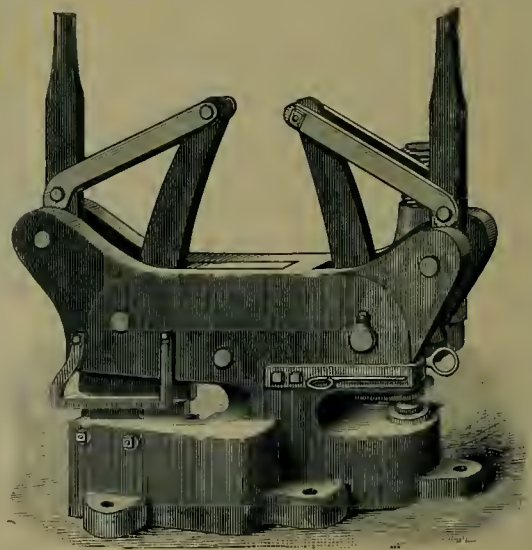
No. 1. Has 6 Punches and Dies, from 3/16 to 1/2 inch, will punch 1/2 inch hole in 3/8 inch iron, or 3/8 inch hole in 1/4 inch plow steel. Cuts off 3/8 inch iron 4 inches wide. This machine is mounted on an iron bench. Weight 250 pounds.

Price, All Ready for Work . . . \$85 00

No. 3. Has 9 Punches and Dies, from 3/16 to 3/4 inch, is guaranteed to punch 1/2 inch hole in 1/2 inch iron, or 7/16 inch hole in plow steel, will cut off 1/2 inch iron 10 inches wide. This machine has been reconstructed in 1882, and made heavier, has a compound purchase, making it so that one man with a 6-foot lever can punch a 1/2 inch hole in 1/2 inch iron. Weight 650 pounds.

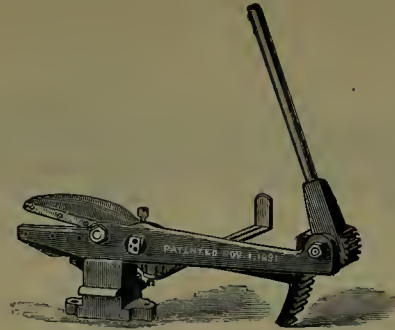
Price, with Bench All Ready to Set Up . . . \$150 00

GUARANTEED TO GIVE ENTIRE SATISFACTION.





# "Eureka" Shears.



ALL CAST STEEL.

Has Adjustable Gauge to Cut Metal or Rods to Length.

No. 1.	Cuts Rods to 1/4 Inch, and Sheets any Width an 1/8 Inch Thick and Less	Each, \$12 00
No. 2.	Cuts to 3/16 Inch Flat, and to 1/2 Inch Round	" 25 00

## BENCH SHEARS.



No.	00	0	1	2	3	4	5	6
Cut, Inch,	12	10 1/2	9	8 3/8	8 3/8	8	7	6
Each,	\$13 50	12 00	8 00	7 00	6 00	5 00	4 00	3 50

## HAND SHEARS.



No.	6 1/2	7	8	9	10
Cut, Inch,	4 1/2	4	3 1/2	3	2 1/2
Each,	\$3 00	2 50	2 00	1 50	1 40

## "Seymour's" Tanners' and Dental Snips.



No. 5.	1 1/2 Inch Cut	Each, \$2 25
--------	----------------	--------------

## Screw Wrenches.

A. G. COE &amp; CO.



Inch,	6	8	10	11	15	18	21	24
<b>Bright,</b>	\$10 00	11 00	14 00	16 00	26 00	32 00	38 00	44 00
<b>Black,</b>	9 00	10 00	12 00	14 00	24 00	30 00	36 00	42 00

"A. D. BRIGGS" PATTERN.

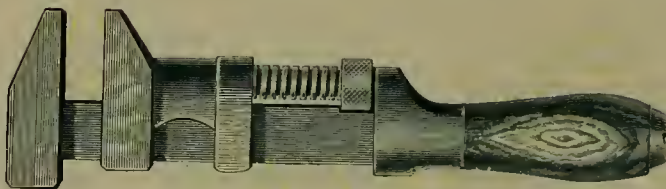


WARRANTED STEEL FACE AND HEAD.

WITH LONG NUT OR SLEEVE.

<b>Bright,</b> Inch,	10	12	15	18
Per Dozen,	\$17 50	20 00	32 50	40 00

AGRICULTURAL WRENCH.



WROUGHT IRON.

<b>Black,</b> Inch,	8	10	12
Per Dozen,	\$10 00	12 00	14 00

"Alligator" Wrench.



Number,	1	2	3	4
Holds Pipe,	1/8 to 3/8 inch.	3/8 to 3/4 inch.	1/2 to 1 1/4 inch.	1 1/4 to 2 inch.
Length,	5 3/4	10	16	22
Per Dozen,	\$4 00	12 00	24 00	36 00

# Pipe Wrenches.

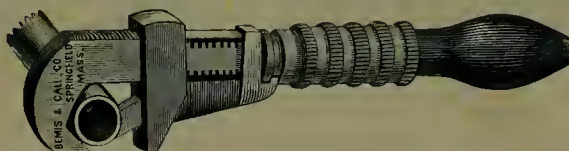
## "STILLSON'S" PATENT WRENCH.



PIPE IS NOT CRUSHED BY ITS USE.

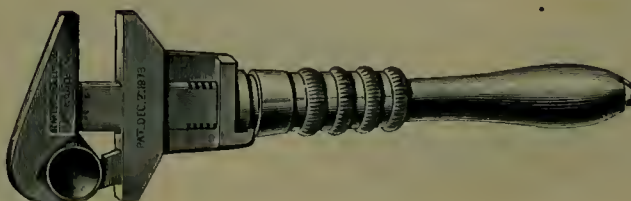
Length Open, Inch,	10	14	18	24
Takes from	1/8 in. wire to 1 in. pipe.	1/4 in. wire to 1 1/2 in. pipe.	1/4 in. wire to 2 in. pipe.	1/4 in. wire to 2 1/2 in. pipe.
Each,	\$2 25	3 00	4 00	6 00

## CYLINDER OR GAS PIPE WRENCH.



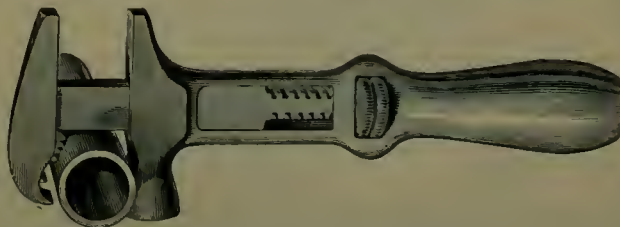
Size,	10	12	15	18
Holds Pipe, Inch,	1/2 to 1	1/2 to 1 3/4	1/2 to 2	1/2 to 2 1/2
Bright, Per Dozen,	\$21 00	24 00	34 00	50 00

## COMBINATION WRENCH.



Size,	10	12	15
Holds Pipe, 1/2 to 1 inch.		1/2 to 1 3/4 inch.	1/2 to 2 inch.
Bright, Per Dozen,	\$25 50	28 50	40 50

## "BOARDMAN'S" PATENT COMBINATION WRENCH.



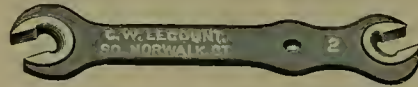
This Combination comprises Six Useful Tools: Screw Wrench, Pipe Wrench, Hammer, Nail Claw, Screw Driver, Bit Handle or Socket Wrench.

NICKEL-PLATED.

No. 0.	Size 4 1/2 Inch (Opens 1 Inch)	Per Dozen, \$10 00
No. 1.	" 6 " ( " 1 1/4 " )	" " 13 00



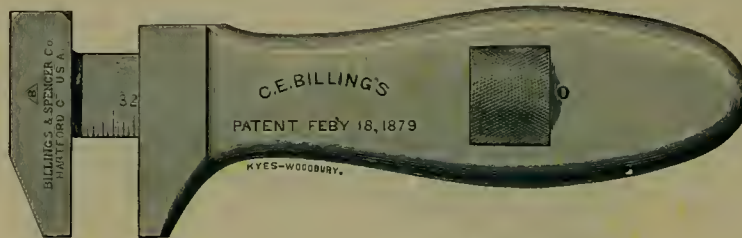
## "Le Count's" Cast Steel Wrenches.



UNSIZE D AND ROUGH.

No. 1.	1/4 and 5/16 Inch	\$o 15	No. 5.	7/8 and 1 Inch	\$o 6o
No. 2.	3/8 " 7/16 "	o 2o	No. 6.	1 1/8 " 1 1/4 "	o 9o
No. 3.	1/2 " 9/16 "	o 3o	No. 7.	1 3/8 " 1 1/2 "	1 5o
No. 4.	5/8 " 3/4 "	o 4o			

## "Billings" Patent Adjustable Wrench.



DROP-FORGED FROM BAR STEEL.

4 Inch, Black	Per Dozen, \$9 0o	4 Inch, Nickerled	Per Dozen, \$1o oo
---------------	-------------------	-------------------	--------------------

## The "Billings & Spencer" S Wrenches.



DROP-FORGED FROM BEST NORWAY IRON.

No.	70	71	73
Length, Inch,	4	5	7
Each,	\$o 15	o 2o	o 3o
Size of Nuts, Inch,	5/16 and 3/8	7/16 and 1/2	11/16 and 3/4

## "Baxter's" Diagonal and S Wrenches.



Size, Inch,	4	6	8	10	12
Per Dozen, \$6 00		9 00	12 00	18 00	24 00



## Cross Rim Wrench.

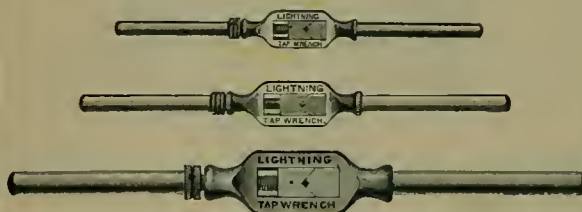


For Nuts  $\frac{3}{16}$ ,  $\frac{1}{4}$ ,  $\frac{5}{16}$  and  $\frac{3}{8}$  Inch.

This Tool will be found to be very handy for nuts inside of felloes of carriage wheels, as well as for other purposes.

Price . . . . . Each, \$0 25

## Adjustable Lightning Tap and Reamer Wrench.



Size A, Length 10  $\frac{1}{2}$  Inches, for Taps  $\frac{3}{16}$  Inch to  $\frac{1}{2}$  Inch.

Price, \$3 00

Size B, Length 15 Inches, for Taps  $\frac{1}{4}$  Inch to  $\frac{3}{4}$  Inch.

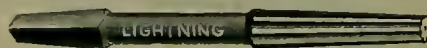
Price, \$3 50

Size C, Length 20 Inches, for Taps  $\frac{3}{8}$  Inch to 1 Inch.

Price, \$5 00

## Lightning Taper Reamers.

With Shanks  $\frac{1}{2}$  Inch in Diameter.



Inch,	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{11}{16}$	$\frac{3}{4}$
Price, \$0	55	0 60	0 65	0 70	0 75	0 80	1 00	1 20	1 40

## New Centre Reamer.



This Tool will be appreciated by every machinist. It is accurately made of the best steel, and of the most approved form.

Price, \$0 50

## Lightning Countersink and Twist Drill Combined.



Hole clear through, exact size of Drill, and Drill may be set according to depth wanted. The Countersink following the Drill, the job is finished at one operation, saving the adjusting of tools and work twice.

Sizes, Inch,	$\frac{5}{32}$	$\frac{7}{32}$	$\frac{9}{32}$	$\frac{11}{32}$
Price, \$1	50	1 60	1 70	1 80

With Round Shanks,  $\frac{41}{64}$  Inch Diameter.



## "Green River" Tire Bolt Holder.



For Clamping Bolts while the Nuts are being turned off. Applied without a Screw.

Price

Each, \$1 00

## "Lightning" Punching Press.



The handle may be set at any angle, up or down, to suit various kinds of work.

This machine is carefully made throughout, of the best material, and is highly approved by our customers.

Will Punch  $\frac{1}{4}$  Inch Round Hole in Iron  $\frac{1}{4}$  Inch Thick, or  $\frac{5}{16}$  Inch Hole in Iron  $\frac{3}{16}$  Inch Thick.

Supplied with 3 Punches and Dies,  $\frac{1}{8}$ ,  $\frac{3}{16}$  and  $\frac{1}{4}$  Inch. Unless otherwise ordered, Punches and Dies will be supplied  $\frac{1}{32}$  Inch over exact sizes.

Price

Each, \$25 00

Extra Punches or Dies. Each, \$0 50

## "Kinney's" Patent Combination Pipe Tong and Wrench.



A PIPE TONG ON ONE SIDE—A WRENCH ON THE OTHER.

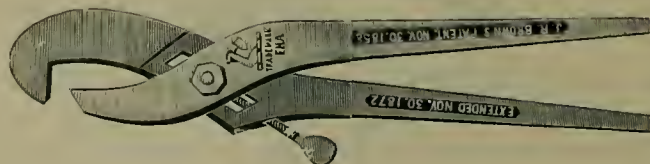
No.	1	2	3	4	5
Holds Iron Pipe, Inch,	$\frac{3}{8}$ to $\frac{1}{8}$	$\frac{3}{4}$ to $\frac{1}{8}$	1 to $\frac{1}{8}$	$1\frac{1}{2}$ to $1\frac{1}{4}$	2 to $1\frac{1}{4}$
Holds Round Iron, Inch,	$\frac{3}{8}$	1	$1\frac{1}{4}$	2	$2\frac{1}{2}$
Price, Each,	\$1 25	1 50	2 00	4 00	5 00

## "Robbin's" Patent Chain Pipe Tongs.



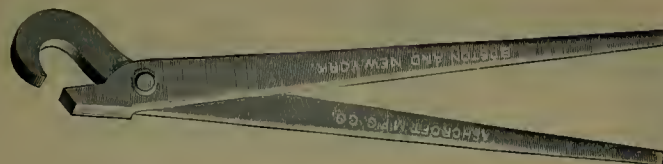
No.	2	3	4	5	6	7
Holds Pipe, Inch,	1 to 2	$1\frac{1}{4}$ to 4	2 to 6	$2\frac{1}{2}$ to 8	4 to 10	4 to 12
Price, Each,	\$5 50	6 25	9 00	12 50	16 00	26 00

## "Brown's" Patent Adjustable Pipe Tongs.



No.	1	$1\frac{1}{2}$	2	3	4	5
Holds Pipe, Inch,	$\frac{1}{8}$ to $\frac{3}{4}$	$\frac{3}{8}$ to 1	$\frac{1}{2}$ to $1\frac{1}{4}$	1 to 2	$1\frac{1}{2}$ to 3	$2\frac{1}{2}$ to 4
Price, Each,	\$1 00	1 25	1 60	2 00	4 00	6 75

## Plain Pipe Tongs.



Size, Inch,	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Price, Each, \$	0 60	0 75	1 00	1 25	1 50	1 75	2 00	2 75	3 00	4 00	5 00	6 00

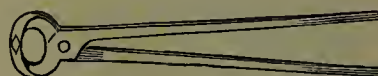
## Blacksmiths' Tongs.

PLAIN.



Inch,	18	20	22	24
Each, \$	0 60	0 65	0 70	0 75

BOLT.



Each	\$1 50
------	--------

GAD.



Each	\$1 50
------	--------

PICK.



Each	\$2 00
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## Wrought Iron Ice Tongs.



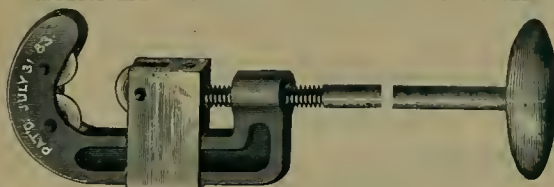
STEEL POINTED.

No. 1. Family Use, Open 14 Inch	Each, \$1 75
No. 2. For Retail Use, Open 17 Inch	" 2 00
No. 3. Loading into Wagons, Open 20 Inch	" 2 50



## Pipe Cutters.

### "BARNES" THREE WHEEL CUTTER.



No. 2 Pipe Cutter,  $\frac{1}{2}$  to 2 Inch

\$6 00

Cutter Wheels, No. 2

0 30

### "SAUNDERS'S."



No.	1	2	3
Cuts, Inch,	$\frac{1}{8}$ to 1	1 to 2	2 to 3
Each,	\$3 00	4 50	14 00
Cutter Wheels,	\$0 25	0 40	0 60

### "STANWOOD'S."



No.	1	2	3
Cuts, Inch,	$\frac{1}{8}$ to 1	1 to 2	2 to 3
Each,	\$3 00	4 50	14 00
Cutter Wheels,	\$0 25	0 40	0 50
Blocks and Wheels,	\$0 50	0 75	1 25

### "Huntington's" Emery Wheel Dresser.

IMPROVED.



PAT. OCT. 11 1875



For Truing, Shaping, Sharpening and Removing Glaze from Solid Emery Wheels Running at Full Speed.

This Tool is a simple and inexpensive device, designed to take the place of the expensive Diamond Tool, while it does the work in a more perfect and satisfactory manner, leaving the Emery Wheel *sharp* and in the best possible condition for cutting.

Price	Extra Cutters	Per Set, \$1 00	Each, \$4 00
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### "Huntington's" Emery Wheel Aggravator.



For Shaping, Sharpening, and Removing Glaze from Emery Wheels.

The "Aggravator" is specially adapted to use on all Saw Gumming and Sharpening Machines, Planer Knife and all Tool Grinding Machines.

Two extra sets of Cutters will be sent free with every tool, that will last for a year or more, making the Patent Emery Wheel Aggravator by far the most economical tool in use.

Price	Extra Cutters	Per Set, \$0 50	Each, \$4 00
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# Plumbers' Tools.

495

## DRESSERS.

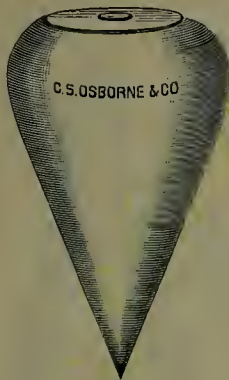


Boxwood

Each, \$1 25 | Hickory

Each, \$0 75

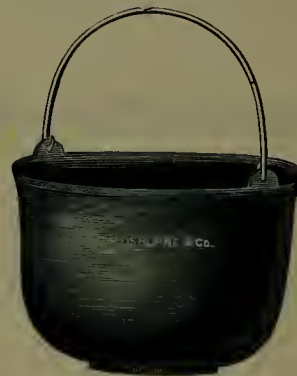
## TURN PINS.



Small  
Medium  
Large

Each, \$0 25  
" 0 40  
" 0 50

## SOLDER POT.



Small  
Medium  
Large

Each, \$0 75  
" 1 00  
" 1 50

## SHAVE HOOKS, OVAL, 1/2 OVAL AND TRIANGLE.



Plain

Each, \$0 50

With Shoulder

Each, \$0 75

## CHIPPING KNIVES.



Five Inch

Each, \$0 60

FOR OTHER PLUMBERS' TOOLS SEE INDEX.

## Plumbers' Tools.

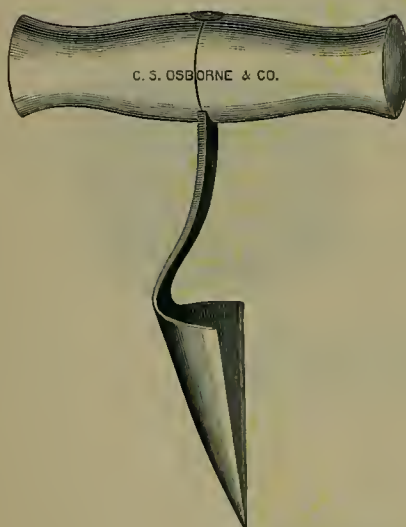
## COPPER POINTED BOLTS.



Per Pound

\$0 40

## TAP BORERS.



## TORCHES.



N. Y. Pattern

Each, \$0 50

Tin

Each, \$1 75

Brass

" 2 25

## ROUND IRONS.



No. 1

2

3

Price, Each, \$0 75

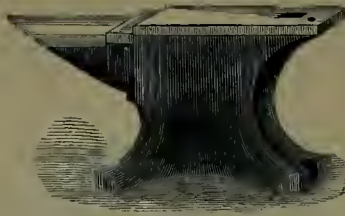
1 00

1 25

FOR OTHER PLUMBERS' TOOLS SEE INDEX.



## “Wright’s” Anvils.



85 to 250 Pounds are Base Sizes

Per Pound, \$—

Over 250 Pounds Advance	Per Pound, \$0 01	50 to 59 Pounds Advance	Per Pound, \$0 03
70 to 84 “ “	“ “ 0 01	40 to 49 “ “	“ “ 0 04
60 to 69 “ “	“ “ 0 02	30 to 39 “ “	“ “ 0 05

## “Eagle” Anvils.



STEEL FACE.

Nos. 0	1	2	3
Weight, Pounds, to	15	20	30
Each, \$2 50	3 00	3 75	4 50

## “Cheney’s” Improved Combined Anvil and Vise.

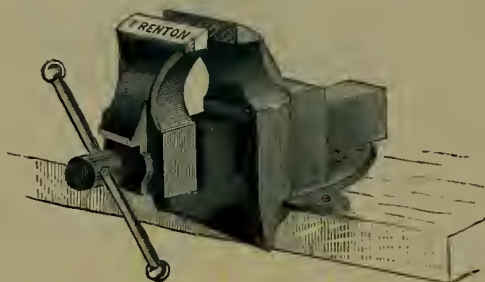
WITH ADJUSTABLE JAW.



No. 10.	Face of Anvil $4\frac{1}{2} \times 2$	Inch, Jaws $2\frac{1}{2}$ Inch Wide, and Opens 3 Inch	Each, \$3 50
No. 20.	“ “ “ $6\frac{1}{2} \times 3$	“ “ $3\frac{1}{3}$ “ “ “ “ 4 “	“ 4 50
No. 30.	“ “ “ $8 \times 3\frac{1}{2}$	“ “ 4 “ “ “ “ 5 “	“ 5 50
No. 40.	“ “ “ $8\frac{1}{2} \times 4$	“ “ $4\frac{1}{2}$ “ “ “ “ 6 “	“ 6 50

## Bench Vises.

## "TRENTON" PATENT IMPROVED PARALLEL.



Jaws, Inch,	2	2½	3	3½	4
Price, \$	3 00	4 00	5 00	5 75	7 50

## "MILLER'S" ANVIL, VISE AND DRILL.

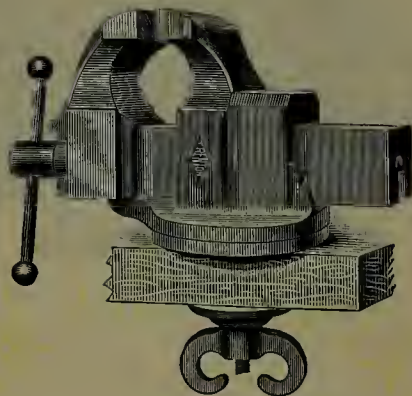


The Anvil has a Steel Face 4 x 8 Inches. Vise Jaws, 3 1/2 Inches Wide and Steel Faced. Steel Drill Press with Adjustable Chuck to hold 1/4 Inch Drills and all Smaller Sizes. Weight of Anvil, Vise and Drill, 80 lbs.

Price . . . . . \$20 00

## Bench Vises.

"TRENTON" PATENT IMPROVED SWIVEL.



Jaws, Inch,	2	2½	3	3½	4
Price, \$	3 50	4 50	5 50	7 00	8 50

"BACKUS" UNION.

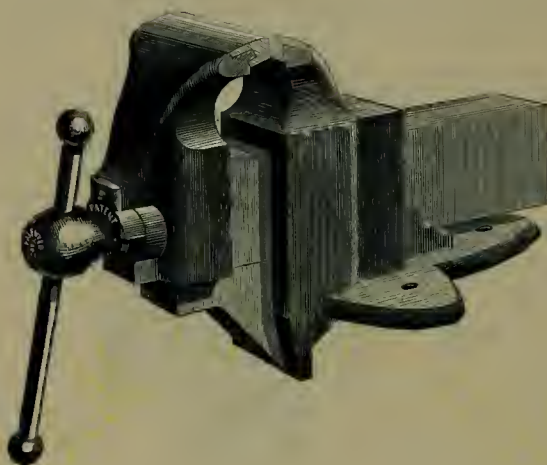


Jaws, Inch,	1½	1¾	2	2½	3	3½	4	4½	5	6	7	8
Price, \$	3 50	4 00	4 50	6 25	7 50	10 00	11 25	14 00	18 75	27 00	30 00	33 00



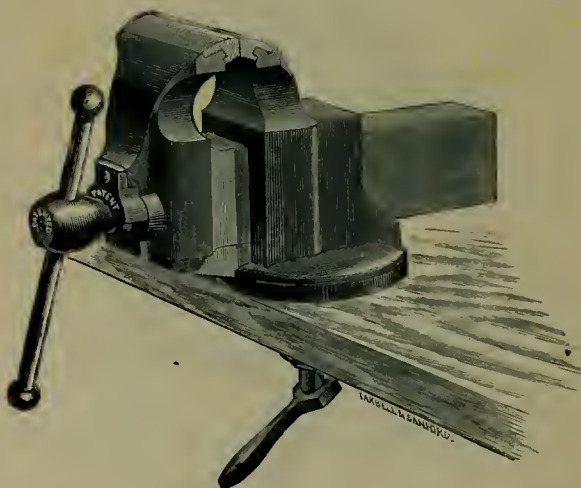
## Bench Vises.

## "PARKER'S" PATENT PARALLEL VISES.



No.	000	1	2	3	4	5
Jaws, Inch.	3¼	3⅝	4¼	4¾	5⅝	6⅝
Price,	\$6 25	7 00	9 00	11 75	16 25	24 00

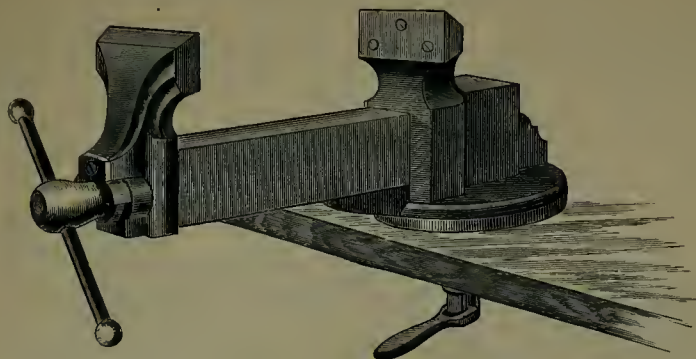
## "PARKER'S" PATENT PARALLEL SWIVEL VISES.



No.	19	20	21	22	23	24
Jaws, Inch.	1¾	2¼	3⅝	3¾	4¼	4¾
Price,	\$4 00	5 00	7 00	8 75	11 00	14 50

# Wood Workers' Vises.

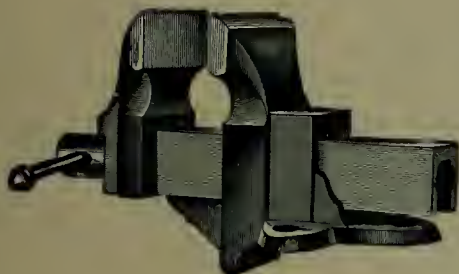
## SWIVEL COACH MAKERS VISE.



No. 46. 4 Inch Jaws, Opens 8 Inches

Each, \$12 50

## "TRENTON" COACH MAKERS' VISE.



4 Inch Jaws, Opens 9 Inches

## "PARKER'S" PATENT COACH MAKERS' VISE.

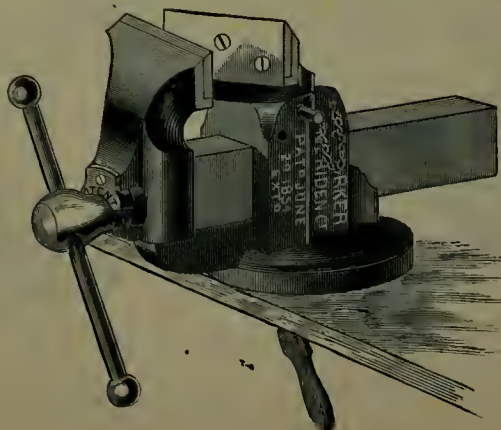


Each, \$9 00

No. 40. 4 Inch Jaws, Opens 8 Inches

Each, \$10 25

## "PARKER'S" PATENT SWIVEL COACH MAKERS' VISE.



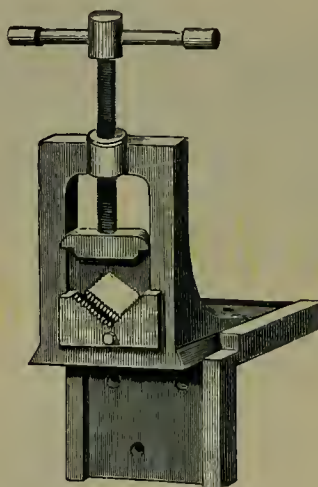
SWIVEL JAW

No. 41. 4 1/2 Inch Jaws, Opens 9 Inches

Each, \$13 00

# Pipe Vises.

"HUNTER, KELLER & CO.'S" WITH ANGLE PLATE.



No. 1 Holds  $\frac{1}{8}$  to 2 Inch . . . . . Each, \$8 00 | No. 2 Holds  $\frac{1}{2}$  to 3 Inch . . . . . Each, \$15 00

"NASON'S."



"SAUNDERS."

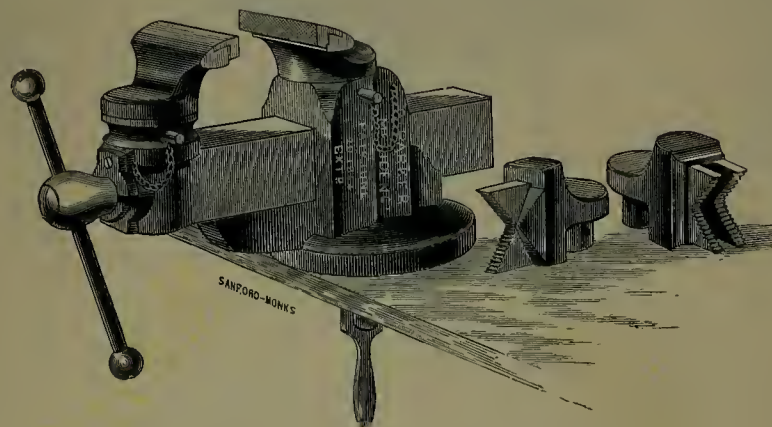


No. 2 Holds $\frac{1}{8}$ to 2 Inch . . . . .	Each, \$18 00	No. 1 Holds $\frac{1}{8}$ to 2 Inch . . . . .	Each, \$14 00
No. 3 " $\frac{1}{4}$ " 3 " . . . . .	" 30 00	No. 2 " $\frac{1}{8}$ " 3 " . . . . .	" 18 00
		No. 3 " $\frac{1}{4}$ " 4 " . . . . .	" 30 00



## Pipe Vises.

PATENT PIPE VISES, WITH INTERCHANGEABLE JAWS.



No. 86. With 2 Sets Jaws, Weight 76 lbs, for Holding 3-Inch Pipe and under

Each, \$14 75

PATENT COMBINATION PIPE VISES.



No. 87. Round and Pipers' Jaws, Weight 41 lbs, for Holding 2-Inch Pipe and under

Each, \$16 00

No. 88. " " " " " 59 " " " 3- " " " "

" 20 00

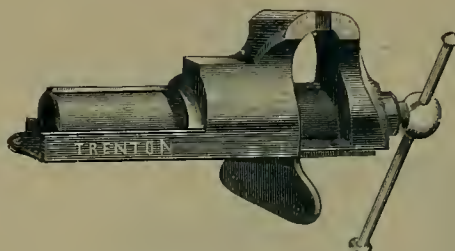
No. 88½. " " " " " 90 " " " 4- " " " "

" 28 00

No. 89. " " " " " 141 " " " 6- " " " "

" 35 00

## The Farmers' Vise.



FOR LIGHT WORK IN METAL OR WOOD.

Jaws, Inch, 2  
Each, \$2 50

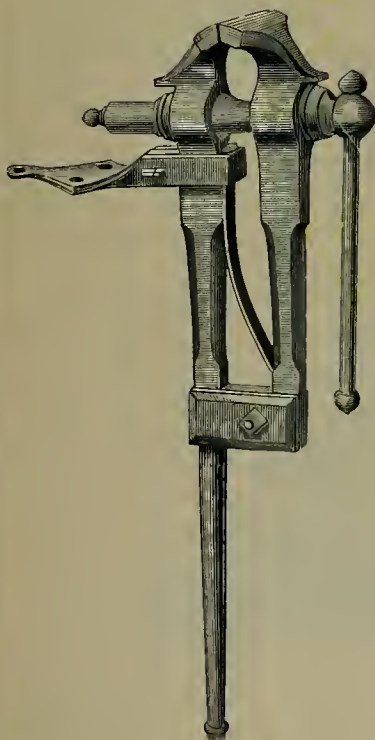
2½  
2 70

3  
3 60

3½  
4 65

4  
6 70

## Solid Box Leg-Vises.



### PRICES.

Weight, 30 lbs		Each, \$10 00
" 35 "		" 8 50
" 40 "		" 9 50
" 45 "		" 10 00
" 50 "		" 11 00
" 55 "		" 12 00
" 60 "		" 13 00
" 65 "		" 14 00
" 70 "		" 15 00
" 75 "		" 16 00
" 80 "		" 17 50
" 85 "		" 18 50
" 90 "		" 20 00
" 95 "		" 21 00
" 100 "		" 22 00
" 105 "		" 23 00
" 110 "		" 24 00
" 115 "		" 25 00
" 120 "		" 26 00
" 125 "		" 27 50
" 130 "		" 29 00
" 135 "		" 31 50
" 140 "		" 33 00
" 145 "		" 35 00
" 150 "		" 36 00
" 160 "		" 41 50
" 170 "		" 44 50
" 180 "		" 47 50
" 190 "		" 53 00
" 200 "		" 56 00

"Wright's" Vises

Per Pound, \$...

American Vises

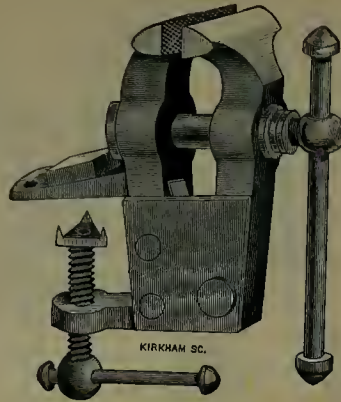
Per Pound, \$...

# German Vises.

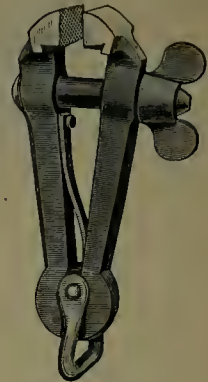
505



Hand, No. 142 Y.



Bench, No. 152.



Telegraph, No. 146.

No. 142 Y, Hand.

Sizes, to Inch, 4½  
Per Dozen, \$ 9 00

5  
10 00

5½  
11 00

6  
12 00

No. 146. Telegraph.

No. 152. Bench.

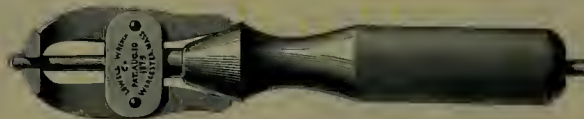
5½ Inch . . . . . Per Dozen, \$12 00 | Assorted to 4 lbs . . . . . Per Dozen, \$24 00

## Handled Hand Vise.



No. 145 Y, to 4½ Inch . . . . . Per Dozen, \$10 50

## "Lowell" Improved Hand Vise.



The above is claimed to be the handiest tool of the kind in use. It is of metal throughout, the jaws being of forged steel, and the handle of case-hardened malleable iron. For holding wire there is a hole through the handle and screw.

6 Inch Long, Nickel-Plated . . . . . Each, \$2 00

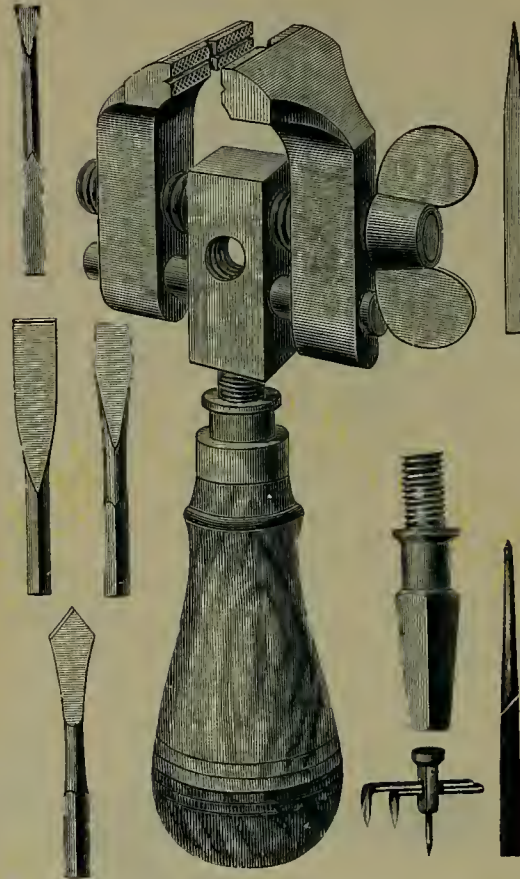
## "Lowell" Pin Vise.



5 Inch Long, Hollow Handle, Nickel-Plated . . . . . Each, \$1 50



## “Alford” Hand Vise.



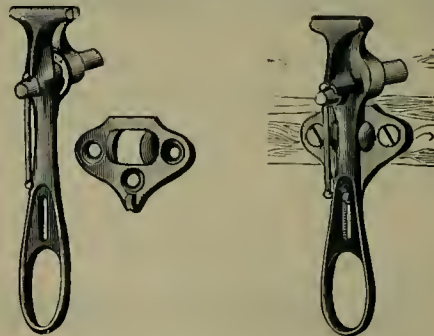
The Vise Jaws are  $1\frac{1}{4}$  inches wide and open  $1\frac{1}{8}$  inches. They will center and hold tools firmly of any shape. The Vise is one-third larger than the cut, while the tools are full size. The handle can be unscrewed from the Vise and the bit shank put in its place, to be used with a bit brace for any kind of boring, drilling or cutting washers. The handle can also be screwed into the Vise at right angles with its usual position, which is desirable for many kinds of work.

Price, with all the Tools, as above

\$1 75

## “Hayden & Barnes” Patent Combination Hand Vise.

WITH PLATE FOR USE AS A VISE, WHEN DESIRED.



MADE FROM CAST STEEL THROUGHOUT.

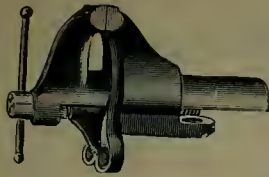
No. 0. 5 Inch Long, 1 Inch Jaw, Weight 8 oz.

Each, \$0 50

## “Hayden & Barnes” Vises.

507

AMATEUR.



ANVIL VISE.



THE NEATEST AND HANDIEST LITTLE TOOL OUT.

Style of Nos. 2 and 3.

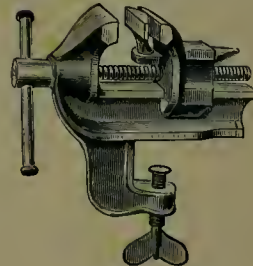
Amateur, No. 1.	1	Inch Jaw, Weight 6 oz.	Each, \$0 25
Anvil Vise, " 2.	1½	" " " 1¼ lbs	" 0 50
" " " 3.	2	" " " 3¼ "	" 1 00

## “Bonney’s” Vises.

No. 1. PLAIN JAW.

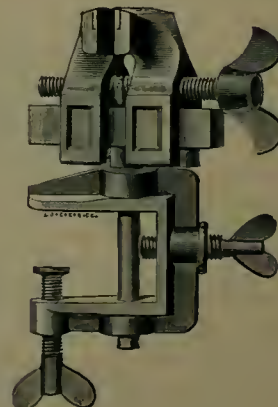
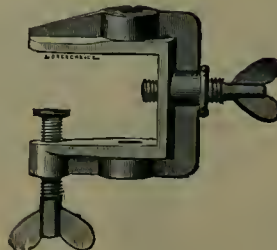


No. 3. SWIVEL JAW.



No. 1. Plain Jaw, 1½ Inch	Per Dozen, \$ 6 00
No. 2. " " 2 "	" " 8 00
No. 3. Swivel " 2 "	" " 12 00

SWIVEL BENCH AND HAND VISE COMBINED.

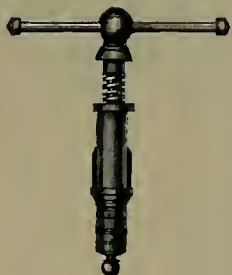


NICKEL-PLATED.

By removing the clamp and attaching the handle that accompanies it, it is at once converted into a Hand Vise. The clamp will be found very useful for many purposes. The Vise can be swivelled or turned all the way around and held firmly at any point of the circle by means of the thumb screw A.

No. 20. 1½ Inch Steel Jaws	Per Dozen, \$16 00
----------------------------	--------------------

## Vise Screws.



SOLID BOX.

## Iron Bench Screws.



WOOD HANDLES, DOUBLE THREAD LOOSE COLLARS.

Diameter Box, Inch,	1½	1¾	2	2½	2¾	2½	2¼	Size, Inch,	1	1½	1¾	1¾	1½
Diameter Screw, Inch,	1½	1¾	1¾	1½	1¾	1¾	2	Per Dozen, \$	12 40	14 20	16 40	26 00	28 80
Each, \$	3 50	4 50	5 00	6 50	7 50	9 00	12 00						

## Wood Bench Screws.



HICKORY.

Inch, 2  
Per Dozen, \$6 00

2¼  
7 00

2½  
8 50



## Adjustable Ball and Socket Saw-Clamp.

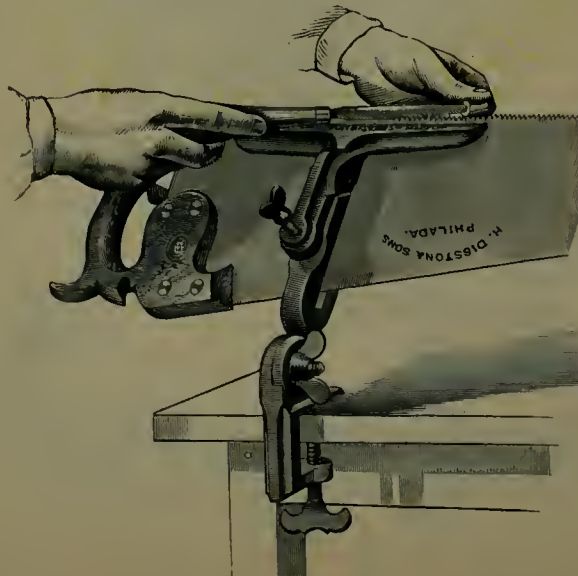


By the use of this Clamp, a Saw can be filed at any angle, or square, as the operator may desire.

No. 1. Ball and Socket

Per Dozen, \$15 00

## Adjustable Saw-Clamp.



No. 2. Adjustable

Per Dozen, \$12 00



# "Stearns" Patent Saw Vise.



No. o.

The No. o Saw Vise is a very popular one. It has many of the advantages which have established the superiority of this Saw Vise over all others in the market. It holds a saw firmly, and by its use the labor of filing is very much lessened. It is light and durable, can be readily detached from the bench and carried from place to place. Length of Jaws,  $9\frac{1}{2}$  inches. Japanned.

Per Dozen . . . . . \$12 00

## Eccentric Clamp.

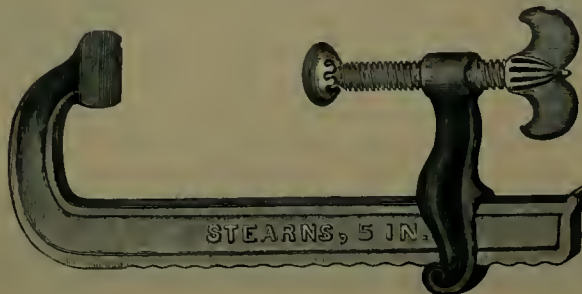


The Clamping Arm or Jaw is so adapted to the H shaft as to slide loosely upon it, or fasten immovably at any point the instant opposing pressure is brought to bear against it from the Eccentric.

Thus, by placing the adjustable foot of the Eccentric Bolt against the work to be clamped, and moving the jaw up the shaft to oppose it, then simply raising the Eccentric Lever, the work is instantly clamped with all the power desirable, and with many advantages over the slow operating screw.

No. 0	1	2	3	4
Opens, Inches, $2\frac{1}{4}$	4	6	8	12
Per Dozen, \$3 60	4 80	6 60	8 40	10 20

## "Stearns" Adjustable Clamps.

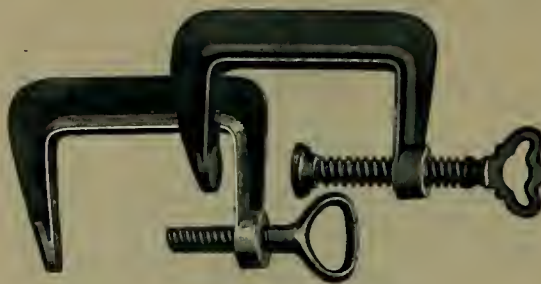


MALLEABLE IRON.

Length, Inch, 3	5	7	9	12
Per Dozen, \$4 00	6 50	9 00	10 50	15 00



## Quilting Frame Clamps.



No. 1.

No. 32.

Japaned.

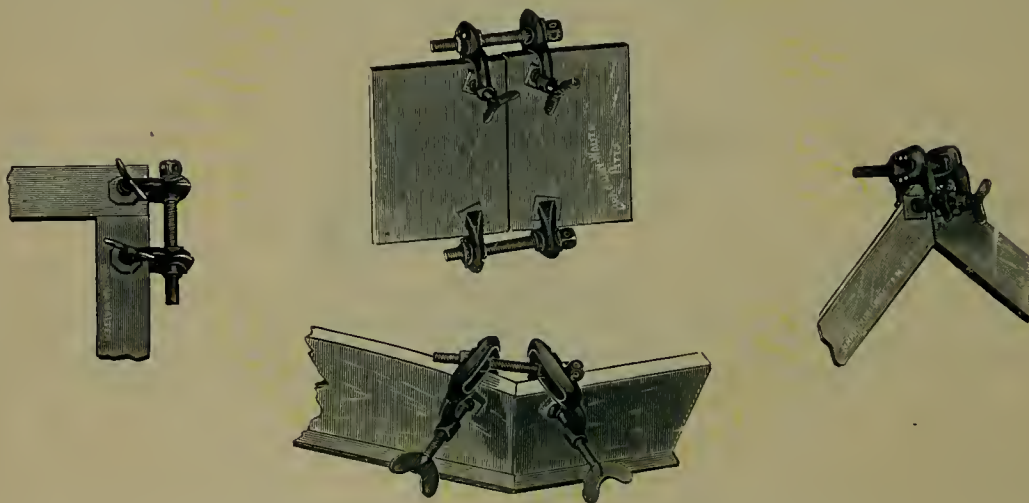
No. 1. Light, Opens  $2\frac{1}{4}$  Inches

Per Dozen, \$1 35

No. 32. Heavy, Opens  $2\frac{1}{4}$  Inches

Per Dozen, \$2 00

## "Monarch" Adjustable Clamps.



Made in three sizes, Nos. 1, 3 and 5. For ordinary work we recommend No. 3; for heavy and general work use No. 5. One pair or set when separated consists of 4 clamps, 4 sleeves, and 2 screw-threaded rods.

No. 1

Per Pair, \$2 50

3

3 00

5

3 50

## Door Clamps.



Complete, as per Cut

Irons Only

Per Dozen, \$24 00

Per Dozen, \$36 50

## Carriage Makers' Clamps.



Malleable Iron, Swivel Nut.

No.	00	0	1	2	3	4	5	6	7
Opens, Inch,	2	2½	3	4	5	7	8	10	12
Per Dozen, \$	2 00	3 50	4 00	6 00	7 00	9 75	11 00	13 00	16 00

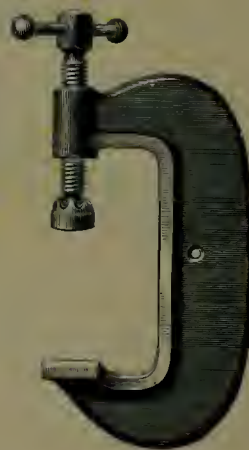
## Boiler Clamp.



Is made of steel; is heavy and very strong; the foot is planed square by the screw; the screw is a good job, done in the lathe on centers, and a good fit in a long nut with a full thread. Is suitable for any heavy work. Opens 4 inches from center of screws and runs back 4½ inches.

Price . . . . . \$4 00

## Steel Clamp.

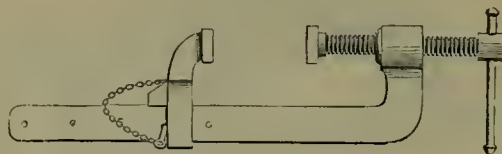


The Back is 2½ Inches from Center of Screw.

Extra heavy, with button on end of screw, hung on a ball so as to accommodate itself to irregularities without bending the screw. The foot of the Clamp is planed.

No.	1	2	3	4	5	6	7	8
Opens, Inch,	2	3	4	5	6	8	10	12
Each, \$	1 75	2 00	2 25	2 50	2 75	3 25	3 75	4 25

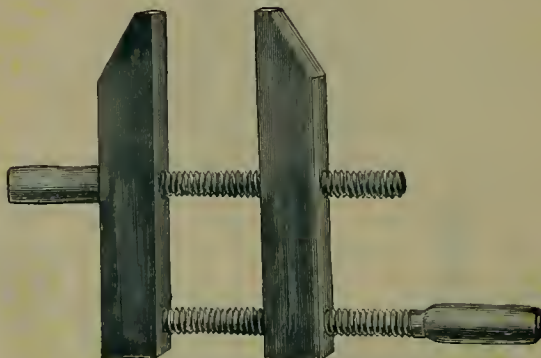
## Slide Jaw Ship Clamps.



COMPOSITION BOX.

Screw, Inch,	$\frac{7}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$
Size of Bar,	" $1\frac{1}{4} \times \frac{1}{2}$	$2\frac{1}{4} \times \frac{1}{2}$	$2\frac{3}{4} \times \frac{5}{8}$	$3\frac{1}{4} \times \frac{3}{4}$
Opening of Clamp,	" $18 \times 4$	$20 \times 4$	$24 \times 4\frac{1}{2}$	$35 \times 5$
Each,	\$7 00	8 00	12 00	15 00

## "Bliss" Hand Screw Clamps.



Diameter of Screw, Inch,	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$
Length " " "	5	9	12	16	18	20	24
" " Jaw, "	4	7	10	14	16	18	20
Per Dozen,	\$2 50	3 00	5 00	7 00	9 00	10 00	11 50

## Drilling Crows.

No. 2. For Pipe  $1\frac{1}{2}$  to 6 Inch

Each, \$13 00

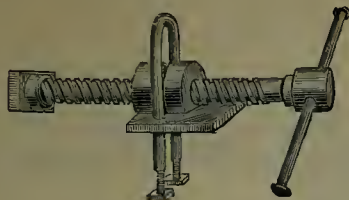
No. 3. For Pipe  $1\frac{1}{2}$  to 12 Inch,

Each, \$16 00

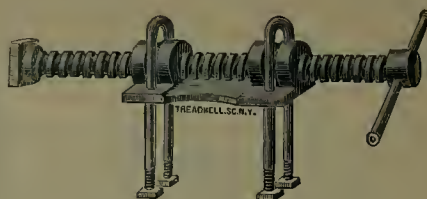


# Clamp Heads.

SINGLE NUT.



DOUBLE NUT.



Single Nut, Wrought Screw, Iron Handle.

Diameter of Screw, Inch,	1	1 1/8	1 1/4	1 1/2
Length, "	9	10	11	12
Per Dozen, \$	15 00	19 00	22 00	31 00

Double Nut, Wrought Screw, Iron Handle.

Diameter of Screw, Inch,	1	1 1/8	1 1/4	1 1/2
Length, "	10	12	13	16
Per Dozen, \$	19 00	23 00	28 00	44 00

## Lathe Dogs.

AMATEURS' DOG.



HEAVY STEEL DOG.



For Small Lathes, Jewelers, Amateurs, etc.

It is Steel, with Hardened Screws.

Steel Screws. U. S. Standard and the Points Hardened.

This Dog is very Heavy, and is Warranted not to Break with any Work.

Amateurs' Dog.

No.	1	2	3	4
Bore, Inch,	3/8	1/2	3/4	1
Each, \$	0 30	0 35	0 45	0 50

Heavy Steel Dog.

No.	1	2	3	4	5	6	7	8	9	10
Inch,	3/8	1/2	3/4	1	1 1/8	1 1/4	1 1/2	1 3/4	2	2 1/2
Each, \$	0 40	0 50	0 60	0 60	0 70	0 70	0 80	0 80	0 95	0 95

No.	11	12	13	14	15	16	17	18	19
Inch,	1 3/4	2	2 1/4	2 1/2	3	3 1/2	4	4 1/2	5
Each, \$	1 10	1 20	1 35	1 45	1 60	1 80	2 10	2 75	3 25

# “Lightning” Screw Plates, Etc.

MADE BY

Wiley &amp; Russell M'fg Co.



Assortment O., Stock 6 Inches Long.

Full Set of No. o, with 14 sizes Taps and Dies, 5/64 to 9/32, Tap Wrench, Bit Brace Holder, and Holder for Lathe Use.

Price, Complete, in Case

\$18 00

Prices of Single Parts, Dies, \$o 60

Guides, \$o 15

Taps, \$o 40

Wrench, \$o 50

Stock, \$1 00

**B Set**, with 7 sizes, 1/4 to 3/4 Inch.

Price, Complete, in Case

\$25 00

**O Set**, with 5 sizes, 1/8 to 1/4 Inch.

Price, Complete, in Case

\$7 00

**C Set**, with 7 sizes, 3/8 to 1 Inch.

Price, Complete, in Case

\$32 75

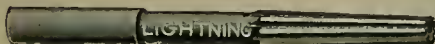
**D Set**, with 6 sizes, 7/8 to 1 1/2 Inch.

Price, Complete, in Case

\$60 00

## Taper Reamers for Bit Brace Use.

SINGLE.



IN SETS.



Inch, 1/4 5/16 3/8 7/16 1/2 9/16 5/8 11/16 3/4

Price, \$o 45 o 50 o 55 o 60 o 70 o 80 o 90 1 o 5 1 20

Sets of 9 sizes, 1/4 to 3/4 Inch.

Price, in Case

\$7 25

# "Lightning" Taps and Dies.

FOR "LIGHTNING" SCREW PLATES.

Made by Wiley & Russell M'g Co.

## HAND TAPS.

Of the Very Finest Quality.

TAPER.



PLUG.



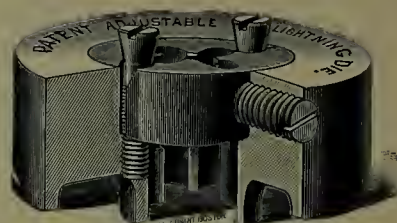
BOTTOMING.



## "LIGHTNING" DIE.

Used in Plates B, C and D, and also in "Lightning" Bolt Cutting Machines.

See Pages 516, 524 and 525.



## Explanation of "Lightning" Die.

The Taper-Headed Screws regulate the cut. Another Binding Screw, not shown in cut, is placed opposite the one shown. In adjusting the Die, the Binding Screws are first slackened, and the size required fixed by moving the Taper-Headed Screws in or out; after which the Binding Screws are set very tight the last thing.

## PRICES OF TAPS, DIES, ETC., FOR "LIGHTNING" PLATES.

Sizes, Inches.	Number of Threads to Inch.	Hand Taps, Taper, Plug or Bottoming, Each.	Dies, Without Collets, Each.	Pipe Dies, With Guides, Each.
3/16	24	\$0 45	\$1 00	...
1/4	20	0 45	1 00	\$1 50
5/16	18	0 50	1 00	...
3/8	16	0 55	1 15	1 90
7/16	14	0 60	1 30	...
1/2	12	0 70	1 50	2 35
9/16	12	0 80	1 75	...
5/8	10 and 11	0 90	1 90	...
3/4	10	1 20	2 35	3 75
7/8	9	1 60	3 00	...
1	8	2 00	3 75	5 00
1 1/8	8	2 25	4 40	...
1 1/4	7	2 60	5 00	5 50
1 3/8	6	3 00	5 75	...
1 1/2	6	3 50	7 00	5 50
2	...	...	...	5 50

Left-hand Taps and Dies same price as right-hand.

Stocks for Size 0, \$1 00; B and C \$4 00; D, \$10 00.

Collets for sizes B and C, \$0 75; D, \$1 00.

Unless otherwise ordered, we fit the "Lightning" Plates (excepting those for wire sizes) with V-Thread Taper Taps and Dies for rough iron, 1/32 over exact sizes. Whitworth and Franklin Institute standard supplied when ordered.

## The "Lightning" Taps and Dies for Use in the Bit Brace.



These are extremely valuable tools on carriage work. Since we introduced them, thousands have gone into use in the best shops, and given the highest satisfaction. They are very frequently kept in use even where there is a Lightning Screw Plate or Machine, as old bolts can often be re-cut without removing them from their places, and much trouble saved in taking work apart. The Die is not solid, but in two pieces, and of the same construction as the dies for Lightning bolt-cutting machines. Each Die has a holder of its own.

Sizes, Inch,	3/16	1/4	5/16	3/8
Tap, Die and Holder, Complete, Price,	\$2 25	2 25	2 30	2 50



## "Green River" Screw Plate.

LIKE THE "LIGHTNING" PLATE, IT DOES ITS WORK AT A SINGLE CUT.

### THE NEW "GREEN RIVER" SCREW PLATE.

We offer the New Plate as an important addition to our line. Its quality, both as to material and workmanship, is up to the highest standard; and its simplicity, solidity, and durability, with its moderate price, make it particularly attractive.

Like the "Lightning" Plate, it does its work at a single cut. The die is adjustable for wear, and to make bolts and nuts fit tightly or loosely as may be desired. The stock used is similar to the "Lightning" and the taps the same.



**Set No. 1.**  $\frac{3}{16}$  to  $\frac{7}{16}$  inch. Stock 10 inches long. With both Stock and Brace Holder for Dies. 5 sizes,  $\frac{3}{16}$ ,  $\frac{1}{4}$ ,  $\frac{5}{16}$ ,  $\frac{3}{8}$ ,  $\frac{7}{16}$  inch Taps, Dies and Guides.

Complete in Case . . . . . \$10 50



**Set No. 2.**  $\frac{1}{4}$  to  $\frac{3}{4}$  inch. Stock 23 inches long. 7 sizes  $\frac{1}{4}$ ,  $\frac{5}{16}$ ,  $\frac{3}{8}$ ,  $\frac{7}{16}$ ,  $\frac{1}{2}$ ,  $\frac{5}{8}$ ,  $\frac{3}{4}$  inch Taps, Dies and Guides.

Complete in Case . . . . . \$17 50



**Set No. 4.**  $\frac{3}{8}$  to 1 inch. Stock 29 inches long. 7 sizes,  $\frac{3}{8}$ ,  $\frac{7}{16}$ ,  $\frac{1}{2}$ ,  $\frac{5}{8}$ ,  $\frac{3}{4}$ ,  $\frac{7}{8}$ , 1 inch Taps, Dies and Guides.

Complete in Case . . . . . \$24 00



**Set No. 5.**  $\frac{1}{4}$  to 1 inch. Stock 29 inches long. 9 sizes,  $\frac{1}{4}$ ,  $\frac{5}{16}$ ,  $\frac{3}{8}$ ,  $\frac{7}{16}$ ,  $\frac{1}{2}$ ,  $\frac{5}{8}$ ,  $\frac{3}{4}$ ,  $\frac{7}{8}$ , 1 inch Taps, Dies and Guides.

Complete in Case . . . . . \$27 00



**Set No. 6.**  $\frac{1}{2}$  to 1  $\frac{1}{4}$  inch. Stock 35 inches long. 7 sizes,  $\frac{1}{2}$ ,  $\frac{5}{8}$ ,  $\frac{3}{4}$ ,  $\frac{7}{8}$ , 1, 1  $\frac{1}{8}$ , 1  $\frac{1}{4}$  inch Taps, Dies and Guides.

Complete in Case . . . . . \$30 00



**Set No. 8.**  $\frac{1}{4}$  to 1  $\frac{1}{4}$  inch. Stock 35 inches long. 11 sizes,  $\frac{1}{4}$ ,  $\frac{5}{16}$ ,  $\frac{3}{8}$ ,  $\frac{7}{16}$ ,  $\frac{1}{2}$ ,  $\frac{5}{8}$ ,  $\frac{3}{4}$ ,  $\frac{7}{8}$ , 1, 1  $\frac{1}{8}$ , 1  $\frac{1}{4}$  inch Taps, Dies and Guides.

Complete in Case . . . . . \$38 50

## Taps and Dies for the "Green River" Screw Plate.

HAND TAPS OF THE VERY FINEST QUALITY.

SAME AS USED IN THE "LIGHTNING" PLATE.

TAPER.



PLUG.



BOTTOMING.



## DIES.

The principle of the Dies will be understood from the cuts and explanation below.



The cut shows a Die and Guide taken out of the Stock, also the same taken apart to show the mechanism. The cup-headed screw on the right holds the halves firmly together, while the size is regulated by the wedge-shaped screw on the left, the whole being clamped in the elastic stock, same as in the "Lightning" Plates.

## PRICES OF TAPS AND DIES SEPARATELY.

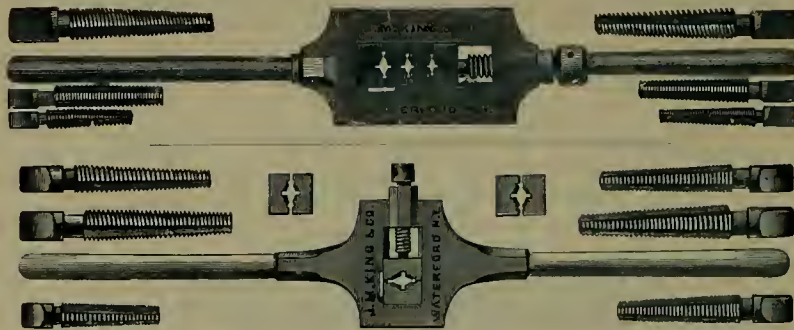
Inches,	3/16	1/4	5/16	3/8	7/16	1/2	9/16	5/8	11/16	3/4	13/16	7/8	15/16	1	1 1/8	1 1/4
<b>Taps, Each,</b>	\$0 45	0 45	0 50	0 55	0 60	0 70	0 80	0 90	1 05	1 20	1 40	1 60	1 80	2 00	2 25	2 60
<b>Dies, "</b>	\$1 25	1 25	1 25	1 50	1 50	1 75	1 75	1 75	1 75	2 00	2 00	3 00	3 00	3 00	3 75	4 50

**Stocks** Nos. 1, 2, 4 and 5, \$2 00 each. Nos. 6 and 8, \$4 00 each. **Guides**, \$0 25 each.

Adjustable Pipe Dies, 1 inch and under, supplied for above Stocks, Nos. 2 to 8.

NOTE. — All sets furnished for rough iron, 1/32 inch over exact standard, unless otherwise ordered.

# "King's" Stocks and Dies.



## PRICES AND DESCRIPTION.

No.	Description	Per Set.
No. 1.	Cuts 2 in. to 1 in. Left Hand, and 2 in. to 1 in. Right Hand, with 8 Taps and 4 Pairs of Dies	\$60 00
No. 2.	" 2 in. to 7/8 in. Right Hand, with 8 Taps and 4 Pairs of Dies	60 00
No. 3.	" 1 3/4 in. to 7/8 in. Left Hand, and 1 3/4 in. to 7/8 in. Right Hand, with 8 Taps and 4 Pairs of Dies	45 00
No. 4.	" 1 3/4 in. to 3/4 in. Right Hand, with 8 Taps and 4 Pairs of Dies	45 00
No. 5.	" 1 1/2 in. to 3/4 in. Left Hand, and 1 1/2 in. to 3/4 in. Right Hand, with 8 Taps and 4 Pairs of Dies	35 00
No. 5 1/2.	" 1 1/2 in. to 3/4 in. Right Hand, with 8 Taps and 4 Pairs of Dies	35 00
No. 6.	" 1 1/2 in. to 1 in. Left Hand, and 1 1/2 in. to 1 in. Right Hand, with 4 Taps and 2 Sets of Dies	20 00
No. 7.	" 1 1/4 in. to 7/8 in. Left Hand, and 1 1/4 in. to 5/8 in. Right Hand, with 6 Taps and 3 Pairs of Dies	12 00
No. 9.	" 1 1/4 in. to 1/2 in. Right Hand, with 6 Taps and 3 Pairs of Dies	12 00
No. 11.	" 1 1/4 in. to 7/8 in. Left Hand, and 1 1/4 in. to 5/8 in. Right Hand, with 4 Taps and 3 Sets of Dies	10 00
No. 15.	" 1 1/4 in. to 1/2 in. Right Hand, with 5 Taps and 3 Sets of Dies	10 00
No. 17.	" 1 in. to 3/4 in. Left Hand, and 1 in. to 1/2 in. Right Hand, with 6 Taps and 3 Pairs of Dies	9 00
No. 19.	" 1 in. to 3/8 in. Right Hand, with 6 Taps and 3 Pairs of Dies	9 00
No. 21.	" 1 in. to 3/4 in. Left Hand, and 1 in. to 1/2 in. Right Hand, with 4 Taps and 3 Sets of Dies	6 00
No. 23.	" 1 in. to 3/8 in. Right Hand, with 3 Taps and 3 Sets of Dies	5 00
No. 25.	" 3/4 in. to 1/2 in. Left Hand, and 3/4 in. to 3/8 in. Right Hand, with 6 Taps and 3 Pairs of Dies	6 50
No. 27.	" 3/4 in. to 3/8 in. Right Hand, with 6 Taps and 3 Pairs of Dies	6 50
No. 32.	" 3/4 in. to 3/8 in. Left Hand, and 3/4 in. to 3/8 in. Right Hand, with 4 Taps and 4 Sets of Dies	5 00
No. 33.	" 3/4 in. to 1/2 in. Left Hand, and 3/4 in. to 1/2 in. Right Hand, with 2 Taps and 2 Sets of Dies	4 00
No. 34.	" 3/4 in. to 5/16 in. Right Hand, with 3 Taps and 3 Sets of Dies	4 50
No. 35.	" 3/4 in. to 3/8 in. Right Hand, with 2 Taps and 2 Sets of Dies	4 00
No. 37.	" 5/8 in. to 3/16 in. Right Hand, with 6 Taps and 3 Sets of Dies	4 25
No. 38.	" 5/8 in. to 7/16 in. Left Hand, and 5/8 in. to 5/16 in. Right Hand, with 6 Taps and 3 Sets of Dies	4 50
No. 41.	" 1/2 in. to 1/8 in. Right Hand, with 6 Taps and 3 Sets of Dies	3 25
No. 42.	" 1/2 in. to 5/16 in. Left Hand, and 1/2 in. to 3/16 in. Right Hand, with 6 Taps and 3 Sets of Dies	3 50
No. 45.	" 5/8 in. to 7/16 in. Left Hand, and 5/8 in. to 5/16 in. Right Hand, with 6 Taps and 3 Pairs of Dies	5 50
No. 47.	" 5/8 in. to 1/4 in. Right Hand, with 6 Taps and 3 Pairs of Dies	5 50
No. 49.	" 1/2 in. to 5/16 in. Left Hand, and 1/2 in. to 1/4 in. Right Hand, with 6 Taps and 3 Pairs of Dies	4 50
No. 51.	" 1/2 in. to 3/16 in. Right Hand, with 6 Taps and 3 Pairs of Dies	4 50
No. 53.	" 5/16 in. to 1/16 in. Right Hand, with 4 Taps and 4 Sets of Dies	2 75

## "King's" Plug and Taper Taps.



Size, Inch,	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1	1 1/8	1 1/4	1 3/8	1 1/2
Each, \$	0 30	0 30	0 35	0 40	0 40	0 50	0 50	0 65	0 50	1 25	1 50	1 75	2 50	3 00

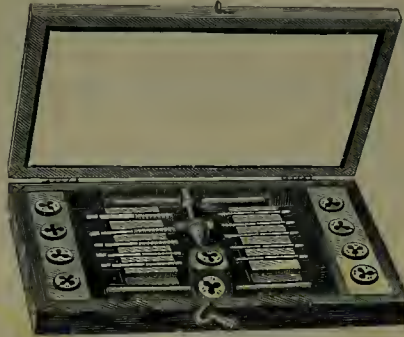


# Gunsmiths' Screw-Plates.

## NOVELTY SCREW-CUTTING TOOLS,

IN SETS,

FOR THREADING TELEGRAPH-INSTRUMENT, SEWING-MACHINE, GUN, AND OTHER SMALL MACHINE SCREWS.



Representing Set No. 3, in Walnut Case.

No. 0.	Containing 1 Die-Holder and 1 Tap and Die each, Nos. 4, 6, 8, 10 and 12	Per Set, \$5 00
No. 1.	Containing 1 Die-Holder, 1 Tap-Wrench, and 1 Tap and Die each, Nos. 4, 6, 8, 10, 12 and 14	" " 7 00
No. 2.	Containing 1 Die-Holder, 1 Tap-Wrench, and 1 Tap and Die each, Nos. 2, 3, 4, 6, 8, 10, 12 and 14	" " 8 50
No. 3.	Containing 1 Die-Holder, 1 Tap-Wrench, and 1 Tap and Die each, Nos. 2, 3, 4, 5, 6, 8, 12 and 14, and 2 each } Taps and Dies, No. 10	" " 10 00

Unless otherwise ordered the above are furnished with Standard Machine-Screw Threads, but different sizes and threads are substituted if desired.

These sets of Improved Screw-Cutting Tools are placed in nicely finished Black Walnut Boxes, with Slots and Grooves cut for each article, so that they may be kept separate and found at a glance when wanted.

[See Page 522 for Other Plates.]

## "STUB'S" NOTCHED SCREW-PLATES,

WITH TAPS COMPLETE.



No. 1.	6 Sizes, Cnts to Follow Drill, No. 45 to 55	Each, \$1 50
No. 1.	8 " " " " " " 36 to 55	" 1 75
No. 2.	6 " " " " " " 24 to 40	" 2 00
No. 2.	8 " " " " " " 12 to 40	" 2 25
No. 2.	10 " " " " " " 3 to 40	" 3 50

## GERMAN SCREW-PLATES,

WITH TAPS COMPLETE.



Length, 6 Inches, Cuts $\frac{3}{32}$ to $\frac{3}{16}$	Each, \$3 00
" 7 " " $\frac{1}{8}$ to $\frac{1}{4}$	" 3 25
" 8 " " $\frac{3}{16}$ to $\frac{5}{16}$	" 3 50

## Screw Plates.

NEW YORK PATTERNS SCREW-CUTTING TOOLS.

No. 1 SCREW-PLATE, DIES AND TAPS.



FOR MODEL-MAKERS AND JEWELERS.

Cuts  $1/8$  <sup>18</sup>,  $5/32$  <sup>40</sup>,  $3/16$  <sup>22</sup>,  $7/32$  <sup>21</sup>,  $1/4$  <sup>20</sup>

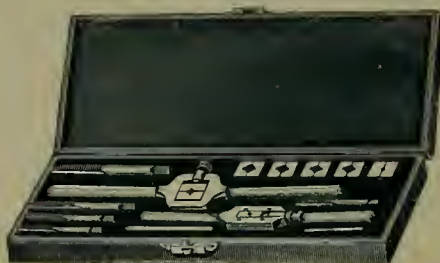
\$4 50

No. 1 TAP WRENCH.

Holds  $1/8$  to  $1/4$ 

\$1 60

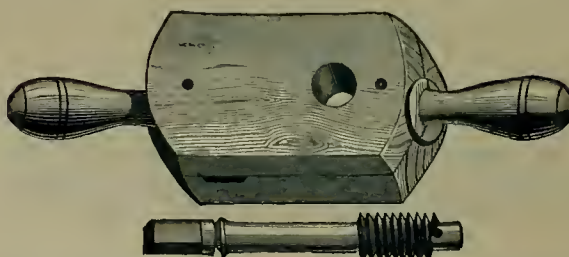
THE ABOVE SCREW PLATE AND TAP WRENCH, NICKEL-PLATED, PUT UP COMPLETE IN A MOROCCO CASE.



With Dies and Taps

\$7 00

## WOOD SCREW-CUTTERS.



FOR CUTTING THREADS ON HARD WOOD, AND TAPPING OUT NUTS FOR THE SAME.

SET CONSISTS OF CUTTER AND TAP.

Size, Inch,	$3/8$	$1/2$	$5/8$	$3/4$	$7/8$	1	$1 1/4$	$1 1/2$
Per Set, \$	1 00	1 00	1 00	1 25	1 40	1 50	2 00	2 75

# "Duplex" Screw Plates.

FOR MACHINISTS' AND BLACKSMITHS' USE.



## FOR THREADING BOLTS.

The accompanying engraving shows sizes AA, A and B Duplex Die Stock without Guides or Cut-off, fitted for Blacksmiths, Carriage Makers, Machinists and Model Makers' use. Cut can be varied  $\frac{1}{8}$  either way with same set of Dies, opened and taken off without turning back. We furnish them, put up in a neat wood case, with complete sets of Dies and Taps.

Size AA Cuts	{	Diameter, Inch,	1/8	3/16	1/4	5/16	3/8	7/16	1/2	}	\$20 00
		Threads,	32	24	20	18	16	14	12		

Put up in Case with 7 Taps and 7 Sets of Dies.

Size A Cuts	{	Diameter, Inch,	1/4	5/16	3/8	7/16	1/2 & 9/16	5/8	3/4	}	\$25 00
		Threads,	20	18	16	14	12	11	10		

Put up in Case with 8 Taps and 7 Sets of Dies.

Size B Cuts	{	Diameter, Inch,	1/4	5/16	3/8	7/16	1/2 & 9/16	5/8	3/4	7/8	1	}	\$35 00
		Threads,	20	18	16	14	12	11	10	9	8		

Put up in Case with 10 Taps and 9 Sets of Dies.

## HAND TAPS FOR "DUPLIX" OR "MAGIC" PLATES.

Size,	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1	1 1/8	1 1/4	1 3/8	1 1/2
Price, \$	0 45	0 50	0 55	0 60	0 70	0 80	0 90	1 20	1 60	2 00	2 25	2 60	3 00	3 50

## DIES FOR "DUPLIX" OR "MAGIC" SCREW PLATES.

Size AA.	Per Single Set of 4 Pieces														\$1 75
Size A.	" " " " 4 "														2 00
Size B.	" " " " 4 "														2 50

## "Gleason's" Screwing Stock for Brass Tubing.



FOR CUTTING FINE THREADS ON BRASS TUBE.

Will Cut, Inches,	5/16	3/8	7/16	1/2	5/8	3/4
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The Above Sizes are for Outside Diameter.

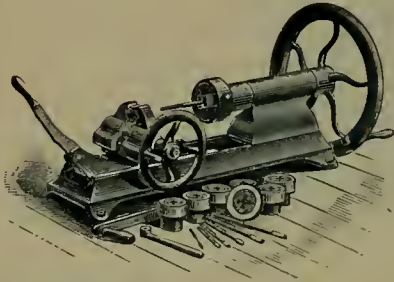
Price, Complete, Without Taps							\$10 00
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WILEY &amp; RUSSELL MFG CO.'S

# "Lightning" Bolt Cutters and Taps.

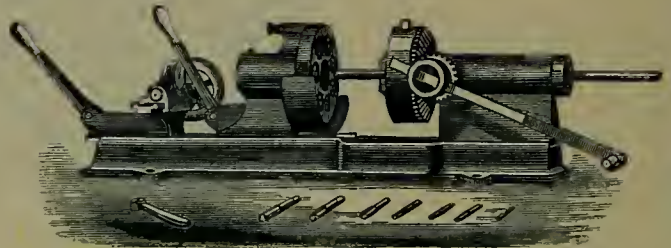
HAND BOLT CUTTERS AND NUT-TAPPERS.



**No. 0.** Made to be bolted to the bench or table. Fitted with 7 sizes, from  $\frac{1}{4}$  inch to  $\frac{3}{4}$  inch. Usual assortment,  $\frac{1}{4}$ ,  $\frac{5}{16}$ ,  $\frac{3}{8}$ ,  $\frac{7}{16}$ ,  $\frac{1}{2}$ ,  $\frac{5}{8}$  and  $\frac{3}{4}$  inch.

Price with Taps, Dies in Collets, etc.,

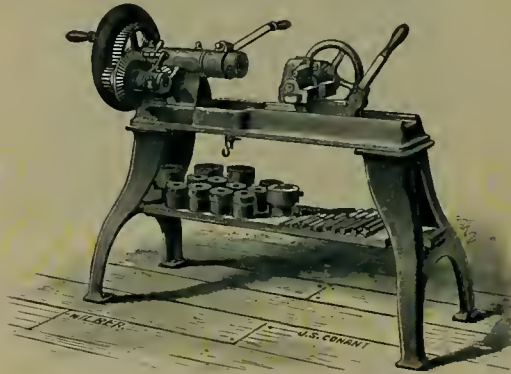
Complete, without Balance-Wheel . . . \$65 00



**No. 1 1/2.** For the bench or table. Fitted with 7 sizes from  $\frac{3}{8}$  inch to 1 inch, inclusive. Usual assortment,  $\frac{3}{8}$ ,  $\frac{7}{16}$ ,  $\frac{1}{2}$ ,  $\frac{5}{8}$ ,  $\frac{3}{4}$ ,  $\frac{7}{8}$  and 1 inch, all  $\frac{1}{32}$  inch over exact standard, unless otherwise ordered.

Price, complete with Taps, Dies, Nut Chuck, etc . . . \$100 00

HAND BOLT-CUTTER AND NUT-TAPPER.



**No. 10.** Weight, 350 pounds.

The capacity of this Machine is, for Bolts and Nuts,  $\frac{1}{4}$  inch to  $1\frac{1}{2}$  inch, and for pipes,  $\frac{1}{8}$  inch to 2 inch. Any crooked or odd-shaped pieces may be threaded without straightening. The engraving shows a  $\frac{1}{2}$  inch staple, held in the chuck. The spindle is hollow, and bolts of any length may be cut. Bolts and nuts, say  $\frac{3}{4}$  inch and under are rapidly done, with the gears out, by the handle on the balance-wheel, in which wheel, moreover, the crank may be placed when desired. For large work the gearing multiplies the direct force of the crank at the side of the Machine between six and seven fold, and the arrangement is such that, the Die being run sufficiently far on the work, the gears may instantly be thrown out and the Die whirled swiftly back off the thread by means of the balance-wheel.

Extra steel dogs are attached to the Chuck to secure large smooth pipe which might sometimes slip in the jaws.

The oil poured on the work is drained into a basin under the Chuck and can be used again.

The remarkably great range of this Machine — it being equally excellent on very large, very small, crooked or straight bolts (with nuts), and on pipe — must make it a favorite.

**Assortment 1.** Machine, complete, with Taps, and Dies in Collets for Bolt and Nuts,  $\frac{1}{4}$ ,  $\frac{5}{16}$ ,  $\frac{3}{8}$ ,  $\frac{7}{16}$ ,  $\frac{1}{2}$ ,  $\frac{5}{8}$ ,  $\frac{3}{4}$ ,  $\frac{7}{8}$ , 1,  $1\frac{1}{8}$ ,  $1\frac{1}{4}$ ,  $1\frac{3}{8}$  and  $1\frac{1}{2}$  inch Chuck, Wrenches, etc., for bench.

Price . . . \$185 00

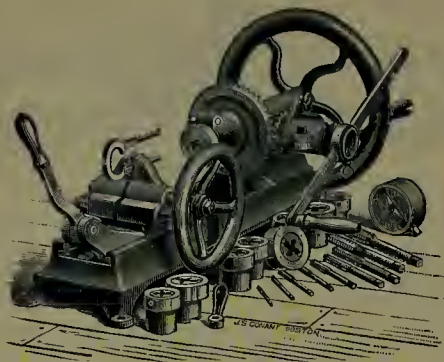
If wanted for Power, add \$50 00. Add for Pipe Dies and Collets  $1\frac{1}{4}$  to 2 inch, \$40 00.

FOR PRICES MACHINE TAPS AND DIES SEE OPPOSITE PAGE.

WILEY &amp; RUSSELL M'FG CO.'S

## "Lightning" Bolt Cutters and Taps.

BOLT-CUTTER AND NUT-TAPPER.

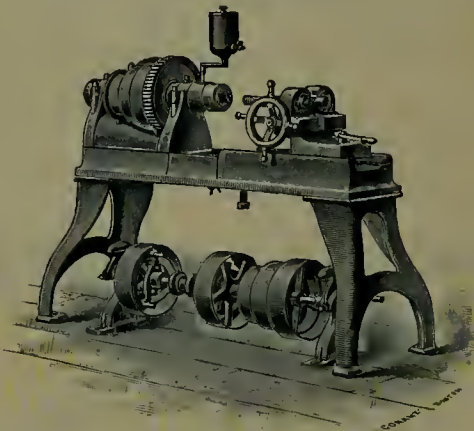


**No. 20.** For the bench or table. Fitted with 9 sizes, 1/4 inch to 1 inch. Usual assortment, 1/4, 5/16, 3/8, 7/16, 1/2, 5/8, 3/4, 7/8 and 1 inch.

Price, with Taps, Dies in Collets, etc., complete for the bench

\$90 00

BOLT-CUTTER AND NUT-TAPPER.—For Power Only.



**No. 15.** Hollow Spindle. Vise adapted to hold properly the various sizes, and to take work of irregular shapes. Powerfully back-geared, the gears to be thrown out, as in engine lathe, for small work, and also in running back after cutting screws.

**Assortment 1.** Machine complete, with Taps, Dies and Collets for bolts and nuts, 1/4, 5/16, 3/8, 7/16, 1/2, 5/8, 3/4, 7/8, 1, 1 1/8, 1 1/4, 1 3/8 and 1 1/2 inch, Counter-shaft, etc.

Price

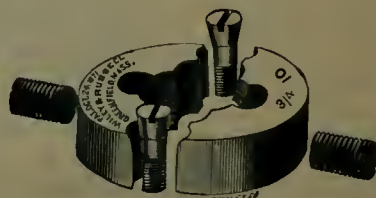
\$375 00

1 3/4 inch Tap, Die and Collet extra, \$17 50.

2 inch Tap, Die and Collet extra, \$21 00.

Pipe Dies and Collets for the above, 1/4 to 2 inch, add \$40 00.

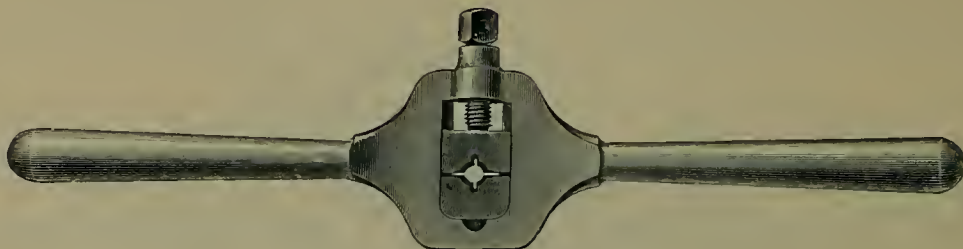
MACHINE TAPS AND DIES.



PRICE MACHINE TAPS AND DIES.

Inches,	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1	1 1/8	1 1/4	1 3/8	1 1/2	1 5/8	1 3/4	2
<b>Taps, Each,</b>	\$0 60	0 70	0 80	0 90	1 00	1 15	1 30	1 60	2 10	2 80	3 20	3 70	4 20	4 70	5 30	6 00	7 70
<b>Dies, "</b>	1 00	1 00	1 15	1 30	1 50	1 75	1 90	2 35	3 00	3 75	4 40	5 00	5 75	7 00	8 50	10 00	12 00

## "New York" Screw Plates.



THE DIE HOLDERS ARE DROP-FORCED FROM THE BEST WROUGHT IRON.

### PRICE, SCREW PLATES WITH DIES.

Size A, with 3 Pair Dies, Cutting $\frac{1}{4}$ 20, $\frac{3}{8}$ 16, $\frac{1}{2}$ 12,	Each, \$ 5 00
" B, " 4 " " " $\frac{3}{8}$ 16, $\frac{1}{2}$ 12, $\frac{5}{8}$ 11, $\frac{3}{4}$ 10.	" 8 00
" C, " 4 " " " $\frac{1}{2}$ 12, $\frac{5}{8}$ 11, $\frac{3}{4}$ 10, $\frac{7}{8}$ 9.	" 10 00
" D, " 4 " " " $\frac{7}{8}$ 8, 1 8, 1 12, 1 12.	" 13 00

Extra Dies for the above, A, \$1 00; B, \$1 25; C, \$1 75; D, \$2 00

## Machinists' Hand Taps.



TAPER.



PLUG.



BOTTOMING.

Size, Inch,	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1 \frac{1}{8}$	$1 \frac{1}{4}$	$1 \frac{3}{8}$	$1 \frac{1}{2}$
Each,	\$0 45	0 50	0 55	0 60	0 70	0 80	0 90	1 20	1 60	2 00	2 25	2 60	3 00	3 50

## Patent Adjustable Tap Wrench.



Size A, holds Taps from  $\frac{1}{4}$  to  $\frac{5}{8}$ , \$3 00

B, from  $\frac{1}{2}$  to 1, \$4 00

C, from  $\frac{7}{8}$  to  $1 \frac{1}{4}$ , \$5 00



# Pipe Threading Tools.

## GAS PIPE STOCKS AND DIES.



No. 1.	Plate, with 2 1/2 inch Square Dies, Threading Pipe	1/4 to 1 inch	Each, \$10 00
No. 2.	" " 4 " " " " " 1 1/4 " 2 "	"	13 50
No. 3.	" " 5 " " " " " 2 1/2 and 3 "	"	30 00

Leader Screws used in both Nos. 2 and 3 Plates.



Extra Dies for No. 1 Plate	\$1 50	Extra Dies for No. 2 Plate	\$2 50
Extra Dies for No. 3 Plate	\$7 50		

## GAS PIPE TAPS.



Size, Inch,	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Each, \$	0 60	0 65	0 75	1 00	1 35	1 70	2 00	2 30	3 50	6 00	8 00

## COMBINED TAP AND DRILL.



ONE OF THE GREATEST LABOR-  
SAVING TOOLS IN USE.

Diameter, Inch,	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
Each, \$	2 50	2 50	3 00	4 50	6 00	7 25	8 50	10 75

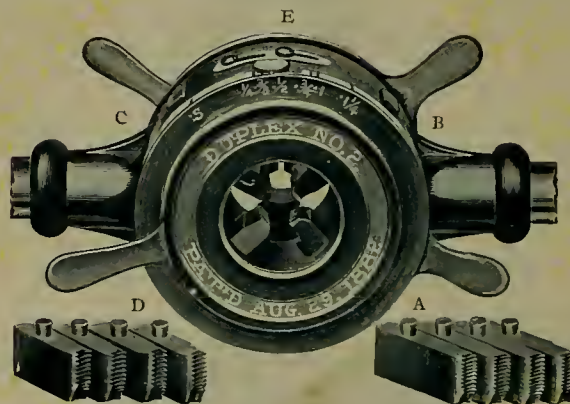
## Pipe Threading Tools.

"MORRIS, TASKER & CO.'S" GAS PIPE STOCKS AND DIES.



No. 2. Threads  $\frac{1}{4}$  to 1 Inch . . . . . Per Set, \$12 00 | No. 3. Threads  $1\frac{1}{2}$  to 2 Inch . . . . . Per Set, \$15 00

### PATENT "DUPLEX" DIE STOCK, OR MAGIC PIPE PLATE.



WITH PIPE CUTTER ATTACHED.

(NOT ILLUSTRATED.)

**Directions for Using.**—To thread  $1\frac{1}{4}$  inch pipe, place each die in the slot bearing the corresponding number and turn cam plate A until the  $1\frac{1}{4}$  inch mark is at the spring gauge E; fasten the dies in this position by screwing down lock plate D; slip the pipe through the guides, the end resting against the dies; close the guides on the pipe by turning cam plate B; fasten guides by turning lock plate C and proceed to cut the thread. To change the dies, turn cam plate A until letter S passes by the spring gauge E. The dies will then slip out.

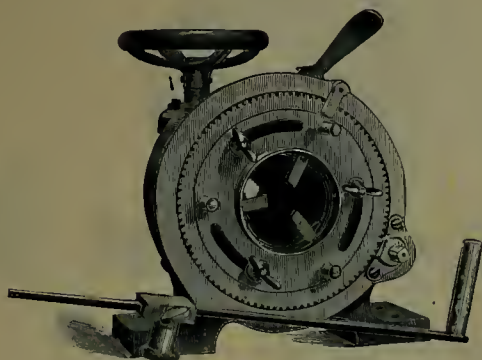
Always keep dies sharp; they will last longer and cut easier; and as the dies wear or are recut, the graduating gauge is very easily and quickly reset. To do this, set the dies in on a standard nipple, tighten the lock plate, loosen the two screws that hold the gauge, and move it into the desired notch on edge of cam.

To cut off pipe put in the blank dies, short end for large pipe and long end for small pipe, slip the pipe through and bring both dies and guides down on the pipe and proceed, feeding lightly with thumb-nut, being careful to turn stock the right way.

Duplex No. 1, or Magic No. 1 Plate, with CUT-OFF and Dies for Threading, $\frac{1}{8}$ , $\frac{1}{4}$ , $\frac{3}{8}$ , $\frac{1}{2}$ and $\frac{3}{4}$	\$16 00
" " 2, " " " 2 " " " " " " " " " " $\frac{1}{4}$ , $\frac{3}{8}$ , $\frac{1}{2}$ , $\frac{3}{4}$ , 1 and $1\frac{1}{4}$	20 00
" " $3\frac{1}{2}$ , " " " 3 " " " " " " " " " " $\frac{1}{2}$ , $\frac{3}{4}$ , 1, $1\frac{1}{4}$ , $1\frac{1}{2}$ and 2	28 00
" " 4, " " " 4 " " " " " " " " " " Four Handles, $1\frac{1}{2}$ , 2, $2\frac{1}{2}$ and 3	45 00
" " 5, " " " 5 " " " " " " " " " " $2\frac{1}{2}$ , 3, $3\frac{1}{2}$ and 4	60 00

# "Forbes" Patent Pipe Threading Machines.

No. 1. "FORBES" PATENT DIE STOCK.



FRONT VIEW.



BACK VIEW.

On pipe from 1 to 2 inches one man can do at least four times the work in a day with this stock, that can be done with the ordinary tool, and a stout lad can pay for the machine in a very short time by cutting nipples with it. By the use of ordinary nipple-holders any length nipple may be cut and about 3-inch nipples can be made without their use.

The front view shows the bit, or die carrying part of the tool. The bits are adjustable to any variation in size of fittings. Marks on the face plate show where to adjust the bits to the various sizes of standard threads.

After the bits are set to the required size, the pipe is introduced through the jaws of the vise, at back of Stock (shown in cut) and by turning the hand wheel at top of the machine are made to draw simultaneously toward the center, thus centering the pipe most perfectly.

The lever shown in front view has a sliding socket which fits the steel pinion shown to the right, and the length of lever can be made to suit the size of pipe, and the strength of the user.

A light, steady pressure of the right hand on the feed lever, and the rotating motion of the crank with the left, will lead the dies on, and cut the desired thread. The system of making the bits is such, that if one should be lost or injured we can replace it by simply knowing the size of Machine, the size of pipe it is used on, and the number which is stamped on its edge. This is a very great point of economy in all these tools, and broken parts need not be returned, as everything is made to gauge.

Range,  $\frac{1}{4}$  to 2 Inches. Right and Left. Weight 60 lbs.

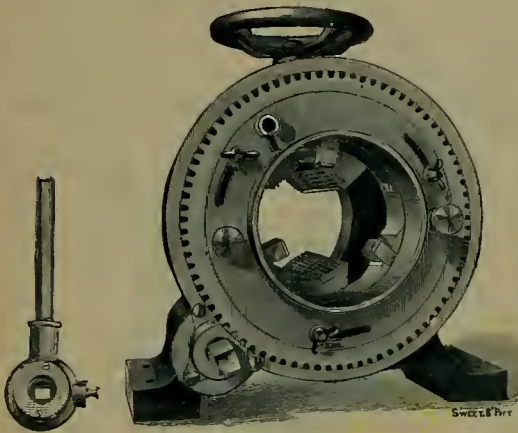
Price

\$60 00



# "Forbes" Patent Pipe Threading Machines.

Nos. 2 & 3. "FORBES" PATENT DIE STOCK.



FRONT VIEW.



BACK VIEW.



Nos. 2 and 3 Stocks are alike in all particulars, with the exception of range and number of bits used in each. No. 2 having three, and No. 3 four, per set.

The front view shows the bit carrying gear, which is explained at length in the description of the No. 1 Stock. With these Stocks, however, the bits are not made adjustable as in the No. 1 Stock.

By turning the face plate to the left the bits are drawn back out of the way when the thread is cut, thus saving running back over it. Turning the face plate to the right brings the bits to standard size.

In order to use the cut-off, the gear must be run back on to its lead screw (which is on the back of the gear) until the lead screw ring is run off the lead screw. It can then be made to rotate without leading. The cut-off tool is then inserted, and is fed to its work by means of a wedge and screw.

The accompanying cut shows a ratchet wrench which will be found most convenient when cutting off in the middle of a pipe, when cutting and threading in the ground, and threading the larger size of pipe. This wrench and a pipe rest is sent with each of the Stocks.

A three foot lever enables one man to cut and thread a 4-inch pipe with the No. 2 Stock in 10 minutes, and a 4 foot lever enables a man to cut and thread 6-inch pipe with the No. 3 Stock in 15 minutes.

The vise jaws on these Stocks are independent, and the bottom one is brought up to the size to be threaded, and the clamping is done by means of the upper hand wheel. The value of this tool, as proved by its large sale, is fully established.

No. 2, Stock. Range  $2\frac{1}{2}$  to 4 inches. Weight, 160 lbs.

Price, \$100 00

No. 3, Stock. Range 4 to 6 inches. Weight, 240 lbs.

" 140 00

## The "Forbes" No. 2 & 3 Patent Die Stocks.

ARRANGED FOR POWER.

No. 2 Stock (power), Range  $2\frac{1}{2}$  to 4 inches.

Weight, 220 pounds. Floor-space, 10 x 12 inches.

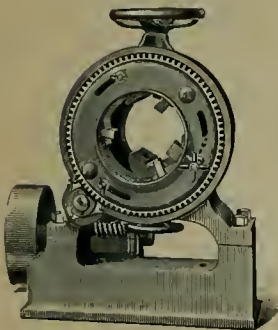
Price, complete with Counter-shaft \$160 00

No. 3 Stock (power), Range 4 to 6 inches.

Weight, 310 pounds. Floor-space, 12 x 24 inches.

Price, complete with Counter-shaft \$190 00

Revolutions of Counter-shaft for above 300.



FRONT VIEW.

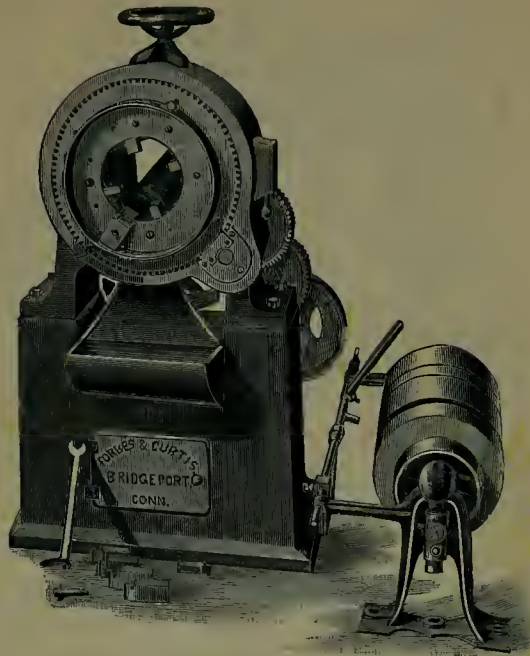


BACK VIEW.

The above machine can be detached from the base and used as a hand machine. We send a ratchet wrench with each, also a pipe rest.

# "Forbes" Patent Pipe Threading Machines.

NO. 3 1/2 POWER PIPE CUTTING AND THREADING MACHINE.



No. 3 1/2 Threads 2 1/2 to 6 Inches.

The manufacturers have given the design of this tool great attention, and for rapidity of handling and general excellence, have produced a machine which we believe fills all requirements, and which, coupled with its very low price, is gaining for them many orders. The bits (or dies) are four in number, and carried by a powerful gear, which is furnished with a lead-screw at its back. These bits are worked forward or back by the throw of a cam ring, which is operated by means of a lever, allowing an adjustment for variations in size of fittings.

One set of bits threads all sizes of pipe from 2 1/2 to 4 inches, and the second set from 4 1/2 to 6 inches.

The cut-off is actuated by a worm and wheel which gives a steady, powerful feed.

The lead-screw, before mentioned, is engaged with two large lead-screw blocks, one of which can be seen at right of cut, about the middle of the shell.

By means of handles, these blocks are thrown out of gear when the thread is cut, and on opening the dies, the gear can be at once drawn forward, and the dies closed ready for another pipe.

In cutting off the gear is sent as far back as possible into the shell, and held there by means of a pin (not shown in cut) the lead-block of course being thrown out.

The jaws of vise are extra strong, being 12 inches long, and of ample strength to resist several times over all possible strain that may by accident be put upon them.

The gearing has 2 1/4 inch face. The driving cones have two changes of speed, and are 3 inch face.

The counter-shaft is arranged for open and cross belts, allowing a few turns backward to be made before loosening the pipe.

Range, 2 1/2 to 6 inches.

Weight, 1600 pounds.

Floor-space, 36 x 40 inches.

Revolutions of Counter-shaft, 160.

Driving Pulley on line-shaft should be 19-inch face.

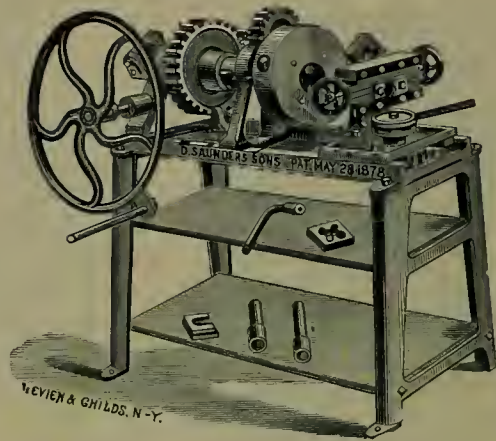
Price

\$400 00

PIPE AND CASINO. OR SPECIAL THREAD STOCKS, UP TO 12-INCH, MADE TO ORDER.

## "D. Saunders' Sons" Pipe Threading Machines.

THE I X L MACHINE.

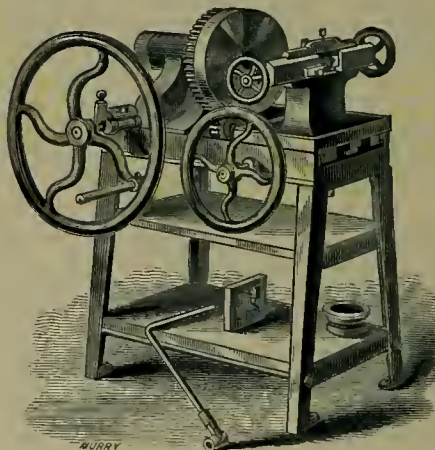


The I X L is a portable machine, weighing, for hand use, about 400 pounds. It cuts off, threads pipe, and makes nipples  $\frac{1}{4}$  to 2 inches. Has three speeds, which are used according to the size of pipe being cut or threaded.

Counter-shaft should revolve, when used as a power machine, 150 revolutions per minute. Size of pulleys, 11 inches.

Price, Complete for Hand . . . . .	\$125 00		Price, Complete for Power . . . . .	\$150 00
------------------------------------	----------	--	-------------------------------------	----------

NO. 1 MACHINE.



No. 1 Machine, while its range of work is the same as the I X L, is a much heavier machine, weighing, for power use, about 700 pounds. It is designed for jobbing shops, for which purpose it is of a strong and substantial character.

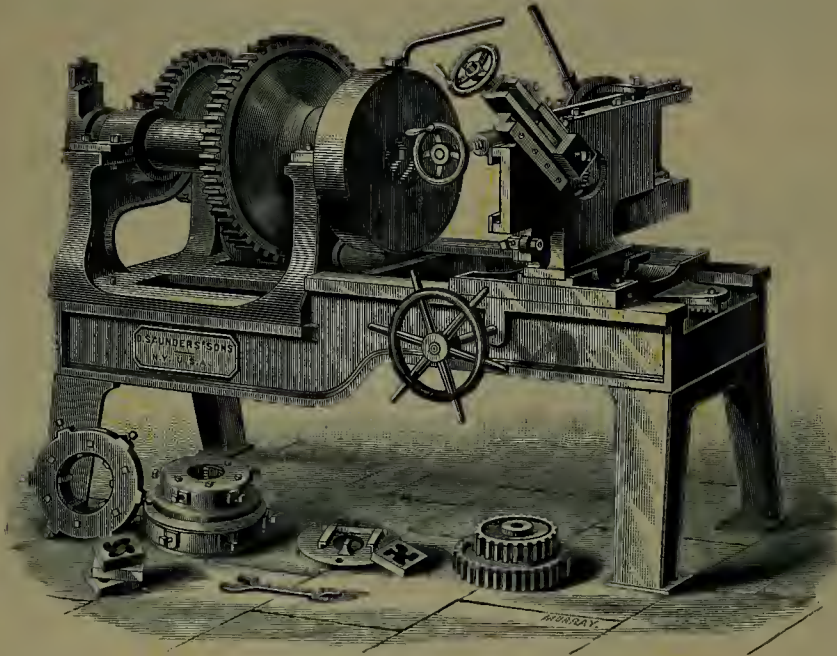
Price, Complete with Dies and Nipple Sockets, $\frac{1}{4}$ to 2 Inches, for Hand . . . . .	\$150 00
For Power, as above, with Counter-shafts . . . . .	175 00

Speed of counter-shaft, 200 revolutions per minute. Diameter of pulleys, 11 inches.



# “D. Saunders’ Sons” Pipe Threading Machines.

NO. 3 MACHINE.



The illustration here given is that of a No. 4 Machine, but the No. 3 is the same in principle, differing only in the shape of the bed, which has but a slight jog at the head, and is straight on the bottom.

The die and head to which it is attached are so constructed that pipe may be alternately threaded and cut off without removing the die from the machine, and the whole arrangement of this part will be found convenient and well adapted to the purpose.

Great care has been exercised in making the patterns for the gearings, which are cast from iron patterns, cut in the most approved shape of teeth, thereby making the machine run almost noiselessly.

Speed of counter-shaft, 200 revolutions per minute; pulleys, 14 inches in diameter.

Weight, with counter-shaft and dies, 2,500 lbs.

## SIZE AND PRICE.

No. 3 threads and cuts off pipe  $\frac{1}{4}$  to 3 inches with cutter dies  $2\frac{1}{2}$  and 3 inches, solid dies  $\frac{1}{4}$  to 2 inches, counter-shaft and bushings complete.

Price

\$450 00

## “Peter Stub’s” Files.

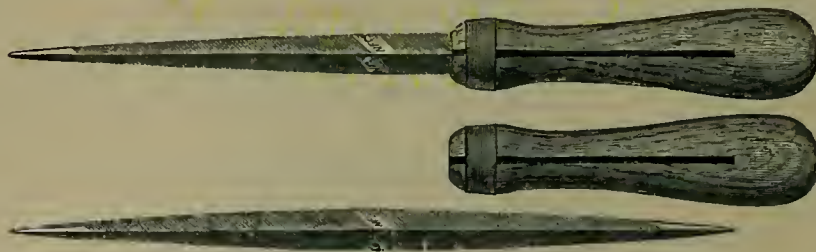
### TAPER SAW—THREE SQUARE.

Length, Inch,	2½	3	3½	4	4½	5	6
Per Dozen,	\$1 75	1 75	1 80	2 00	2 80	3 10	3 50

### SECOND CUT.

Style	Inch,	3	3½	4	4½	5	6
Square	Per Dozen,	\$1 65	\$2 00	\$2 25	\$2 50	\$2 65	\$3 65
Hand	“ “	1 75	1 75	2 00	2 50	2 65	3 65
Equalling	“ “	2 00	2 00	2 25	2 50	2 75	3 50
Knife	“ “	1 65	1 75	2 00	2 50	2 65	3 65
Flat	“ “	1 75	1 75	2 00	2 50	2 65	3 65
Warding	“ “	1 75	1 75	2 00	2 25	2 50	3 50
Half Round	“ “	2 00	2 25	2 75	3 00	3 25	4 25
Round	“ “	1 75	2 00	2 25	2 40	2 65	3 40

## “Double Ender” Handsaw File and Handle.



The above illustrations represent a new pattern of handsaw file and handle ; also the two combined as when ready for use.

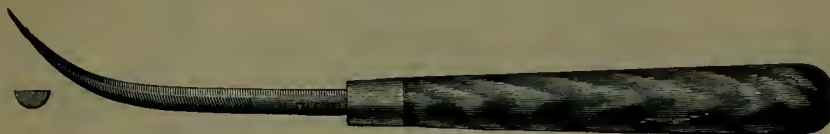
They are neatly put up in boxes containing 6 Double Enders and 6 Handles, and designated as follows :

### DOUBLE ENDER, SINGLE CUT SAWFILES.

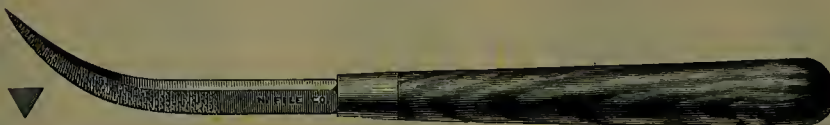
No. 7.	Represents Two 3½ Inch Tapers,	Per Dozen, \$2 55	No. 9.	Represents Two 4½ Inch Tapers,	Per Dozen, \$3 15
No. 8.	“ “ 4 “ “	“ “ 2 80	No. 10.	“ “ 5 “ “	“ “ 3 70

## Bent Riffers—Handled.

Riffers are used, principally, by carvers in wood, metals, marble and stone; also, in shaping and finishing in and about the many irregular places of pattern work.



HALF-ROUND BASTARD.



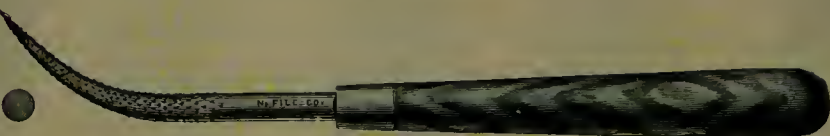
THREE-SQUARE RASP.



THREE-SQUARE BASTARD.



HAND BASTARD.



ROUND RASP.



FLAT FLOAT (Safe Sides).

We present, herewith, a set of 6 Bent Riffers. The custom, hitherto, has been to prepare this form of file on each end of a piece of steel, leaving the middle portion fashioned into a handle. By this form, one end is much in the way, when the other is being used. The form now presented will obviate this difficulty, and at the same time furnish a suitable handle for the better control of the Riffer, than by the old style.

They will be furnished and sold by the set, consisting of the 6 pieces as herewith represented, neatly packed in strong paper boxes.

Price, per Set of 6 Files

\$3 00

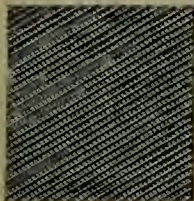


## Files and Rasps.

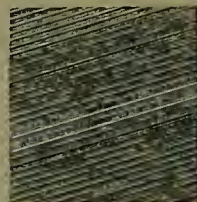


## NOTICE.

For Castings, Wrought Iron, Brass, Composition Metals and like material,  
order **Bastard Cut.**

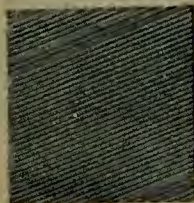


Bastard.



Mill Saw Bastard.

For Steel and Part Finish to Iron Work, order **Second Cut.**

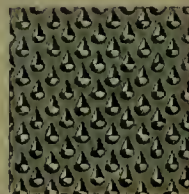


Second Cut.

For Finishing to a Good Surface, order **Smooth Cut.**

For an Extra Finish, order **Dead Smooth.**

For Finishing Work—after Bastard use **Second Cut**, after Second Cut  
**Smooth or Dead Smooth.**



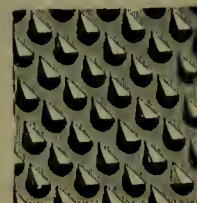
Wood Rasp.

It is always to consumers' advantage to order special cuts for special work.

See Additional Illustrations on Pages 537, 538, 539 and 540.

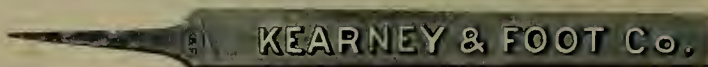


Smooth.

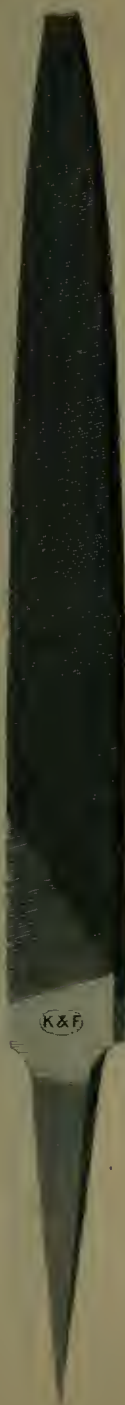
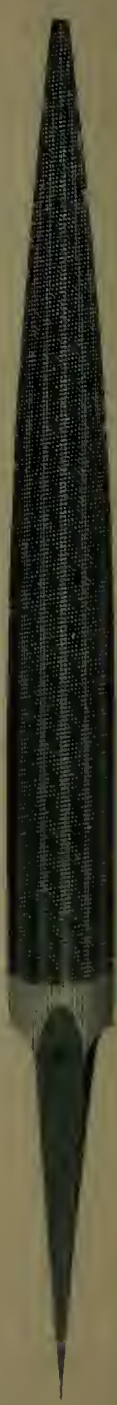


Horse Rasp.

SEE PRICE LIST ON PAGE 541.



Should a File be Defective, by taking it to the Parties from whom Purchased, a Perfect one  
will be Given in Exchange, Free of Charge.

*Flat Bastard 6 in. No 1**Flat 2<sup>nd</sup> Cut 6 in. No 2**Hand Smooth 6 in. No 3**Hand Dead Smooth 6 in. No 4**Round Bastard 6 in. No 5**Halfround Bastard 6 in. No 6*

*Taper Saw File 6 in. N<sup>o</sup> 7*



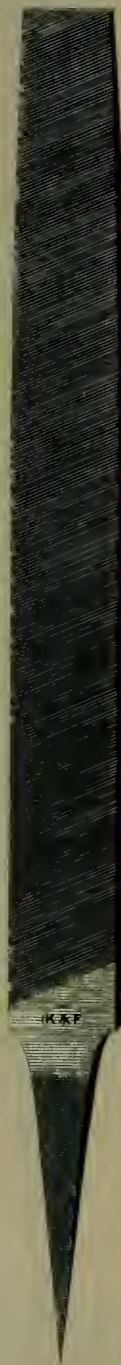
*Band Saw Taper File 6 in. N<sup>o</sup> 8*



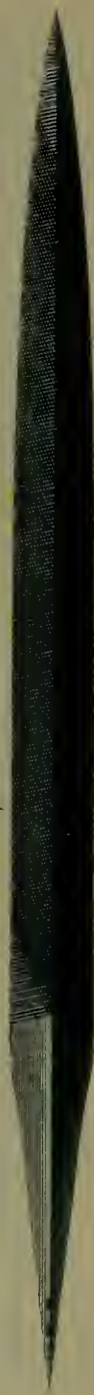
*Slim Taper Saw File 6 in. N<sup>o</sup> 9*



*Mill Bastard 6 in. N<sup>o</sup> 10*



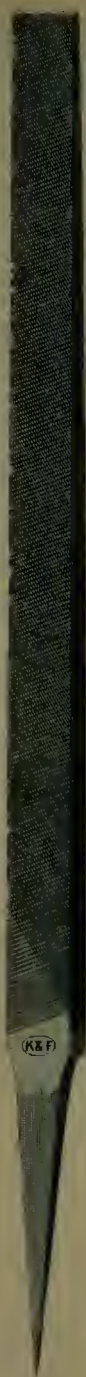
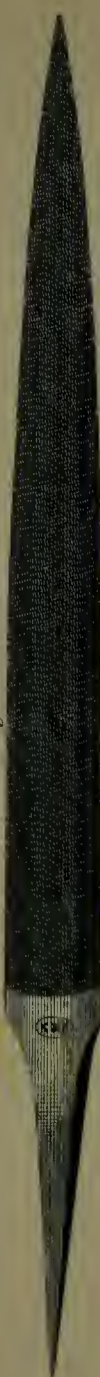
*3 Square Bastard 6 in. N<sup>o</sup> 11*



*Warding Bastard 6 in. N<sup>o</sup> 12*





*Equaling Bastard 6 in. N<sup>o</sup> 13**Pillar Bastard 6 in. N<sup>o</sup> 14**Square Bastard 6 in. N<sup>o</sup> 15**Crossing Bastard 6 in. N<sup>o</sup> 16**Cabinet File 6 in. N<sup>o</sup> 17**Halfround Wood Rasp 6 in. N<sup>o</sup> 18**Cabinet Rasp 6 in. N<sup>o</sup> 19*

# Diagrams of Standard Sizes of Regular Files.

Hand	Flat	Halfround	Round	Square	Three Square
30	3	3	3	3	3
31	4	4	4	4	4
32	6	6	6	6	6
33	8	8	8	8	8
34	10	10	10	10	10
35	12	12	12	12	12
36	14	14	14	14	14
37	16 m	16 m	16 m	16 m	16 m
38	3	3	3	3	3
39	4	4	4	4	4
40	6	6	6	6	6
41	8	8	8	8	8
42	10	10	10	10	10
43	12	12	12	12	12
44	14	14	14	14	14
45	16 m	16 m	16 m	16 m	16 m
46	3	3	3	3	3
47	4	4	4	4	4
48	6	6	6	6	6
49	8	8	8	8	8
50	10	10	10	10	10
51	12	12	12	12	12
52	14	14	14	14	14
53	16 m	16 m	16 m	16 m	16 m
54	3	3	3	3	3
55	4	4	4	4	4
56	6	6	6	6	6
57	8	8	8	8	8
58	10	10	10	10	10
59	12	12	12	12	12
60	14	14	14	14	14
61	16 m	16 m	16 m	16 m	16 m
62	3	3	3	3	3
63	4	4	4	4	4
64	6	6	6	6	6
65	8	8	8	8	8
66	10	10	10	10	10
67	12	12	12	12	12
68	14	14	14	14	14
69	16 m	16 m	16 m	16 m	16 m
70	3	3	3	3	3
71	4	4	4	4	4
72	6	6	6	6	6
73	8	8	8	8	8
74	10	10	10	10	10
75	12	12	12	12	12
76	3	3	3	3	3
77	4	4	4	4	4
78	6	6	6	6	6
79	8 m	8 m	8 m	8 m	8 m
80	3	3	3	3	3
81	4	4	4	4	4
82	6	6	6	6	6
83	8	8	8	8	8
84	10	10	10	10	10
85	12 m	12 m	12 m	12 m	12 m
86	3	3	3	3	3
87	4	4	4	4	4
88	6	6	6	6	6
89	8	8	8	8	8
90	10	10	10	10	10
91	12 m	12 m	12 m	12 m	12 m
92	3	3	3	3	3
93	4	4	4	4	4
94	6	6	6	6	6
95	8	8	8	8	8
96	10	10	10	10	10
97	12 m	12 m	12 m	12 m	12 m
98	3	3	3	3	3
99	4	4	4	4	4
100	6	6	6	6	6
101	8	8	8	8	8
102	10	10	10	10	10
103	12	12	12	12	12
104	14	14	14	14	14
105	16 m	16 m	16 m	16 m	16 m
106	3	3	3	3	3
107	4	4	4	4	4
108	6	6	6	6	6
109	8	8	8	8	8
110	10	10	10	10	10
111	12	12	12	12	12
112	14	14	14	14	14
113	16 m	16 m	16 m	16 m	16 m
114	3	3	3	3	3
115	4	4	4	4	4
116	6	6	6	6	6
117	8	8	8	8	8
118	10	10	10	10	10
119	12	12	12	12	12
120	14	14	14	14	14
121	16 m	16 m	16 m	16 m	16 m
122	3	3	3	3	3
123	4	4	4	4	4
124	6	6	6	6	6
125	8	8	8	8	8
126	10	10	10	10	10
127	12	12	12	12	12
128	14	14	14	14	14
129	16 m	16 m	16 m	16 m	16 m
130	3	3	3	3	3
131	4	4	4	4	4
132	6	6	6	6	6
133	8	8	8	8	8
134	10	10	10	10	10
135	12	12	12	12	12
136	14	14	14	14	14
137	16 m	16 m	16 m	16 m	16 m
138	3	3	3	3	3
139	4	4	4	4	4
140	6	6	6	6	6
141	8	8	8	8	8
142	10	10	10	10	10
143	12	12	12	12	12
144	14	14	14	14	14
145	16 m	16 m	16 m	16 m	16 m
146	3	3	3	3	3
147	4	4	4	4	4
148	6	6	6	6	6
149	8	8	8	8	8
150	10	10	10	10	10
151	12	12	12	12	12
152	14	14	14	14	14
153	16 m	16 m	16 m	16 m	16 m
154	3	3	3	3	3
155	4	4	4	4	4
156	6	6	6	6	6
157	8	8	8	8	8
158	10	10	10	10	10
159	12	12	12	12	12
160	14	14	14	14	14
161	16 m	16 m	16 m	16 m	16 m
162	3	3	3	3	3
163	4	4	4	4	4
164	6	6	6	6	6
165	8	8	8	8	8
166	10	10	10	10	10
167	12	12	12	12	12
168	14	14	14	14	14
169	16 m	16 m	16 m	16 m	16 m
170	3	3	3	3	3
171	4	4	4	4	4
172	6	6	6	6	6
173	8	8	8	8	8
174	10	10	10	10	10
175	12	12	12	12	12
176	14	14	14	14	14
177	16 m	16 m	16 m	16 m	16 m
178	3	3	3	3	3
179	4	4	4	4	4
180	6	6	6	6	6
181	8	8	8	8	8
182	10	10	10	10	10
183	12	12	12	12	12
184	14	14	14	14	14
185	16 m	16 m	16 m	16 m	16 m
186	3	3	3	3	3
187	4	4	4	4	4
188	6	6	6	6	6
189	8	8	8	8	8
190	10	10	10	10	10
191	12	12	12	12	12
192	14	14	14	14	14
193	16 m	16 m	16 m	16 m	16 m
194	3	3	3	3	3
195	4	4	4	4	4
196	6	6	6	6	6
197	8	8	8	8	8
198	10	10	10	10	10
199	12	12	12	12	12
200	14	14	14	14	14
201	16 m	16 m	16 m	16 m	16 m
202	3	3	3	3	3
203	4	4	4	4	4
204	6	6	6	6	6
205	8	8	8	8	8
206	10	10	10	10	10
207	12	12	12	12	12
208	14	14	14	14	14
209	16 m	16 m	16 m	16 m	16 m
210	3	3	3	3	3
211	4	4	4	4	4
212	6	6	6	6	6
213	8	8	8	8	8
214	10	10	10	10	10
215	12	12	12	12	12
216	14	14	14	14	14
217	16 m	16 m	16 m	16 m	16 m
218	3	3	3	3	3
219	4	4	4	4	4
220	6	6	6	6	6
221	8	8	8	8	8
222	10	10	10	10	10
223	12	12	12	12	12
224	14	14	14	14	14
225	16 m	16 m	16 m	16 m	16 m
226	3	3	3	3	3
227	4	4	4	4	4
228	6	6	6	6	6
229	8	8	8	8	8
230	10	10	10	10	10
231	12	12	12	12	12
232	14	14	14	14	14
233	16 m	16 m	16 m	16 m	16 m
234	3	3	3	3	3
235	4	4	4	4	4
236	6	6	6	6	6
237	8	8	8	8	8
238	10	10	10	10	10
239	12	12	12	12	12
240	14	14	14	14	14
241	16 m	16 m	16 m	16 m	16 m
242	3	3	3	3	3
243	4	4	4	4	4
244	6	6	6	6	6
245	8	8	8	8	8
246	10	10	10	10	10
247	12	12	12	12	12
248	14	14	14	14	14
249	16 m	16 m	16 m	16 m	16 m
250	3	3	3	3	3
251	4	4	4	4	4
252	6	6	6	6	6
253	8	8	8	8	8
254	10	10	10	10	10
255	12	12	12	12	12
256	14	14	14	14	14
257	16 m	16 m	16 m	16 m	16 m
258	3	3	3	3	3
259	4	4	4	4	4
260	6	6	6	6	6
261	8	8	8	8	8
262	10	10	10	10	10
263	12	12	12	12	12
264	14	14	14	14	14
265	16 m	16 m	16 m	16 m	16 m
266	3	3	3	3	3
267	4	4	4	4	4
268	6	6	6	6	6
269	8	8	8	8	8
270	10	10	10	10	10
271	12	12	12	12	12
272	14	14	14	14	14
273	16 m	16 m	16 m	16 m	16 m
274	3	3	3	3	3
275	4	4	4	4	4
276	6	6	6	6	6
277	8	8	8	8	8
278	10	10	10	10	10
279	12	12	12	12	12
280	14	14	14	14	14
281	16 m	16 m	16 m	16 m	16 m
282	3	3	3	3	3
283	4	4	4	4	4
284	6	6	6	6	6
285	8	8	8	8	8
286	10	10	10	10	10
287	12	12	12	12	12
288	14	14	14	14	14
289	16 m	16 m	16 m	16 m	16 m
290	3	3	3	3	3
291	4	4	4		



## Files and Rasps.

For Illustrations, see Pages 536 to 540.

BASTARD.	4 In.	5	6	7	8	9	10	11	12	13	14	15	16	18	20
Mill Saw, and Round . . .	\$1 80	2 00	2 25	2 55	2 90	3 30	3 80	4 50	5 40	6 50	7 80	9 30	11 00	15 10	20 40
Mill Saw, One Round Edge	1 94	2 15	2 42	2 74	3 12	3 55	4 09	4 84	5 81	6 99	8 39	10 00	11 83	16 23	21 93
Flat and Square . . . . .	2 00	2 20	2 50	2 90	3 40	4 00	4 70	5 60	6 70	8 00	9 50	11 20	13 10	17 65	23 20
Hand . . . . .	2 25	2 50	2 80	3 20	3 70	4 35	5 20	6 30	7 50	8 90	10 50	12 30	14 30	19 20	25 30
Half Round . . . . .	2 50	2 80	3 20	3 70	4 30	5 00	5 80	6 70	7 80	9 10	10 60	12 40	14 50	19 60	26 00
SECOND CUT.															
Mill Saw, and Round . . .	2 15	2 40	2 65	3 00	3 40	3 85	4 40	5 20	6 20	7 45	8 90	10 60	12 50	16 90	22 85
Flat and Square . . . . .	2 40	2 60	2 95	3 40	4 00	4 70	5 45	6 50	7 70	9 15	10 90	12 75	14 85	19 75	26 00
Hand . . . . .	2 70	3 00	3 30	3 75	4 35	5 10	6 00	7 30	8 60	10 20	12 00	14 00	16 20	21 50	28 35
Half Round . . . . .	3 00	3 35	3 80	4 35	5 00	5 85	6 75	7 75	9 00	10 40	12 10	14 15	16 50	22 00	29 10
SMOOTH.															
Round . . . . .	2 40	2 65	2 95	3 30	3 70	4 20	4 80	5 65	6 75	8 05	9 65	11 45	13 40	18 10	24 50
Flat and Square . . . . .	2 65	2 90	3 25	3 75	4 35	5 10	5 90	7 05	8 40	10 00	11 80	13 75	16 00	21 20	27 85
Hand . . . . .	3 00	3 30	3 65	4 15	4 75	5 55	6 55	7 95	9 40	11 00	13 00	15 10	17 50	23 00	30 35
Half Round . . . . .	3 30	3 70	4 15	4 80	5 50	6 40	7 30	8 45	9 75	11 25	13 10	15 25	17 70	23 50	31 20
RASPS.															
Cabinet Files . . . . .			4 20	5 00	6 10	7 30	8 75	10 40	12 30	14 50	16 90	19 60	22 50		
Cabinet Rasps . . . . .			6 00	7 00	8 20	9 60	11 20	13 00	15 00	17 20	19 60	22 20	25 00		
Flat & Half Round Wood Rasps			4 20	5 00	6 10	7 30	8 75	10 40	12 30	14 50	16 90	19 60	22 50		
Farriers' or Horse . . . . .							6 50	7 50	9 00	10 70	12 70	15 00	17 60	23 70	
Tanged Horse . . . . .							9 00	10 25	12 00	14 00	16 50	19 50	23 00		
Shoemakers' Rasps, Flat . . .			4 60	5 30	6 10	7 00	8 00	9 10	10 30	11 60	13 00				
SAW FILES.															
	3 In.	3 1/2	4	4 1/2	5	5 1/2	6	7	8	9	10	11	12	13	14
Tapers Slim Single Cut . . .	\$1 20	1 20	1 30	1 45	1 70	1 90	2 10	2 50	3 00	3 70	4 50	5 50	6 80	8 30	10 00
Tapers Regular Single Cut . .	1 10	1 10	1 20	1 40	1 70	2 00	2 40	3 00	3 80	4 60	5 70	7 20	9 00	11 00	13 20
Tapers Double Cut to Point and Band Saw . . . . .	1 60	1 60	1 75	2 00	2 40	2 75	3 25	4 00	4 95	5 90	7 10	8 80	10 80	12 90	15 20
Pit Saw Single Cut . . . . .	2 10	2 10	2 20	2 30	2 50	2 80	3 20	3 70	4 30	5 00	5 80	6 70	7 70		



## Plumb Bobs.

### "PACIFIC" SCREW TOP PLUMB BOBS.

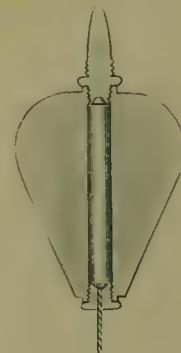


CAP.

Steel Pointed and Balanced.

Weight, Ounce,	8	10	12	14	16	20
Each,	\$1 25	1 25	1 50	1 75	2 00	2 50

### "VAJEN'S" PATENT REVERSIBLE PLUMB BOB.



This new and perfect *Plumb Bob*, designed to overcome all the disadvantages of other Plumb Bobs, is capable of being adjusted to any and all the forms required by the *Millwright, Mechanic and Civil Engineer*, has no equal and cannot be improved upon. It has the only proper shape for a Bob, having a hole extending entirely through it, with a reversible, well-tempered *Steel Point* and *Screw Cap*, which, being interchangeable, enables the Bob to be suspended in several positions. The hole in the center of the Bob affording protection for the point when not in use. By filing the shoulder the Bob can always be adjusted and made true. The Plumb Bob is made of brass and nickel-plated, furnishing as pretty and as valuable a tool as there is in the market.

Weight, 16 Ounces

Each, \$2 25

# Plumb Bobs.

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## LEAD PLUMB BOBS.



Steel Pointed.

## BRASS PLUMB BOBS.



Steel Pointed, Screw Top.

No. 3. Weight, 12 ounces each . . .	Per Dozen, \$5 00	No. 5. Weight, 6 ounces each . . .	Per Dozen, \$ 7 25
No. 4. " 1¼ pounds " . . .	" 6 50	No. 6. " 11½ " " . . .	" 10 00



Half Size Cut of No. 0.

## JAPANNED PLUMB BOBS.

No. 00. Adjusted Top, Weight, 18 ounces each. . .	Per Dozen, \$3 00
No. 0. " " " 42 " " . . .	" 4 00
No. 1. Staple Top, " 9 " " . . .	" 1 50



Half Size Cut of No. 1.

## ADJUSTABLE PLUMB BOBS.

These Plumb Bobs are constructed with a reel at the upper end, upon which the line may be kept, and by dropping the bob with a slight jerk, while the ring is held in the hand, any desired length of line may be reeled off. A spring, which has its bearing on the reel, will check and hold the bob firmly at any point on the line. The pressure of the spring may be increased or decreased, by means of the screw which passes through the reel. A suitable length of line comes already reeled on each Plumb Bob.



No. 1. (Small) Bronze Metal, with Steel Point . . .	Each, \$1 50
No. 2. (Large) " " " " . . .	" 1 75
No. 5. (Large) Iron " " " " . . .	" 1 00

"DAVIS"

## Adjustable Spirit Level, Plumb and Inclinator.

UNEQUALED IN ACCURACY, DURABILITY AND SIMPLICITY. EACH LEVEL FULLY WARRANTED.



No. 1. 6 Inch

Each, \$2 00



No. 2. 12 Inch

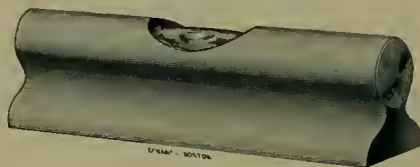
Each, \$2 50 | No. 3. 18 Inch

Each, \$3 00 | No. 4. 24 Inch

Each, \$3 50

## "Richardson's" Machinists' Iron Levels.

IRON BENCH LEVEL.



Nos. 1 and 2.

IRON BENCH LEVEL.



No. 3.

IRON BENCH LEVEL.



No. 4.

IRON LEVEL, WITH DOUBLE PLUMB.



No. 5.

IRON LEVEL, WITH DOUBLE PLUMB.



No. 6.

IRON LEVEL, WITH DOUBLE PLUMB.



No. 7.

No. 1.	Iron Bench Level, 2½ Inch	Each, \$	25	No. 5.	Iron Level, with Double Plumb, 6 Inch,	Each, \$	1 25
No. 2.	" " " 3½ "	"	30	No. 6.	" " " " 9 "	"	1 35
No. 3.	" " " 4 "	"	65	No. 7.	" " " " 12 "	"	1 50
No. 4.	" " " 6 "	"	75				



# Levels.

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## MACHINISTS' IRON BENCH LEVEL.



No. 10. 3 Inch . . . . . Each, \$0 75  
 No. 12. 5 " . . . . . " 1 00

## IRON BENCH LEVEL, FOR SQUARE.



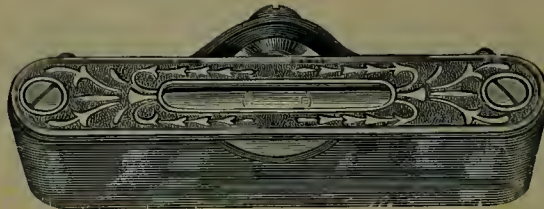
No. 11. 3 Inch . . . . . Each, \$0 80

## IRON POCKET LEVEL, FOR SQUARE.



No. 17. 3½ Inch . . . . . Each, \$0 30

## POCKET LEVELS.



No. 40. Cast Iron Top Plate, Japanned, 1 Dozen in a Box . . . . . Per Dozen, \$2 50  
 No. 41. Brass Top Plates, 1 Dozen in a Box . . . . . " " 3 00

## LEVEL GLASSES.

Inch, 1¼	2	2½	3	3½	4
Per Gross, \$9 50	10 00	10 50	11 50	13 00	14 50

## MECHANICS' TELESCOPIC PLUMB-LEVEL AND TARGET.



Mechanics will find this instrument the most reliable and accurate working tool ever invented, for determining horizontal and perpendicular lines; and also for sighting grades through the telescope.

Price, Complete . . . . . \$12 00

## Plumbs and Levels.



No. 0.



No. 3.



No. 9.

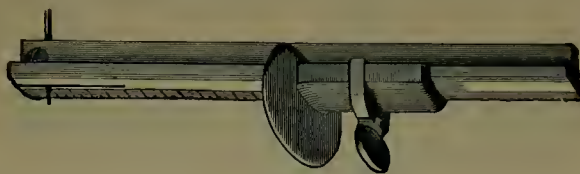
## Plumbs and Levels.

			Per Dozen.
No. 102.	Levels, Arch Top Plate, 2 Side Views, Polished	Assorted, 10 to 16 Inch,	\$9 00
No. 0.	Plumb and Level, Arch Top Plate, 2 Side Views, Polished,	Assorted, 24 to 30 Inch,	18 00

## Patent Improved Adjustable Plumbs and Levels.

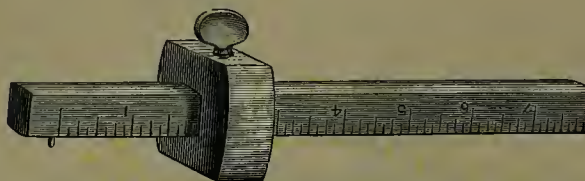
			Per Dozen.
No. 1.	Patent Adjustable Mahogany Plumb and Level, Arch Top Plate, 2 Side Views, Polished, Assorted, 26 to 30 Inch,		\$27 00
No. 2.	Patent Adjustable Plumb and Level, Arch Top Plate, 2 Brass-Lipped Side Views, Polished	" 26 to 30 "	27 00
No. 3.	Patent Adjustable Plumb and Level, Arch Top Plate, 2 Side Views, Polished and Tipped	" 26 to 30 "	30 00
No. 4.	Patent Adjustable Plumb and Level, Arch Top Plate, 2 Brass-Lipped Side Views, Polished and Tipped	" 26 to 30 "	39 00
No. 5.	Patent Adjustable Plumb and Level, Triple Stock, Arch Top Plate, 2 Ornamental Brass-Lipped Side Views, Polished and Tipped	" 26 to 30 "	48 00
No. 6.	Patent Adjustable Mahogany Plumb and Level, Arch Top Plate, 2 Brass-Lipped Side Views, Polished	" 26 to 30 "	33 00
No. 9.	Patent Adjustable Mahogany Plumb and Level, Arch Top Plate, 2 Ornamental Brass-Lipped Side Views, Polished and Tipped	" 26 to 30 "	48 00
No. 10.	Patent Adjustable Mahogany Plumb and Level, Triple Stock, 2 Ornamental Brass-Lipped Side Views, Arch Top Plate, Polished and Tipped	" 26 to 30 "	60 00

# Marking Gauges.



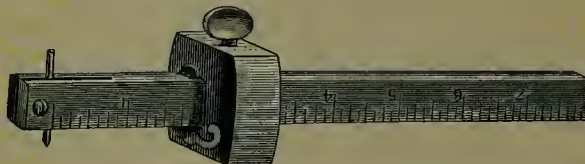
No. 60.

- No. 60. Patent Iron Marking and Cutting Gauge, Oval Bar, Marked, Adjusting Steel Point, equally well adapted for use on Metals or Wood,  $\frac{1}{2}$  Dozen in a Box. . . . . Per Dozen, \$ 5 00



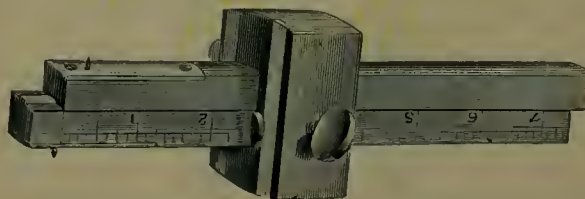
No. 61.

- No. 61. Marking Gauge, Beechwood, Boxwood Thumb Screw, Oval Bar, Marked, Steel Point, 1 Dozen in a Box, Per Dozen, \$ 1 00



No. 65.

- No. 62. Patent Marking Gauge, Beechwood, Polished, Boxwood Thumb Screw, Oval Bar, Marked, Adjusting Steel Point, 1 Dozen in a Box . . . . . Per Dozen, \$ 2 00
- No. 65. Patent Marking Gauge, Boxwood, Polished, Plated Head, Brass Thumb Screw and Shoe, Oval Bar, Marked, Adjusting Steel Point,  $\frac{1}{2}$  Dozen in a Box . . . . . " " 5 00
- No. 66. Patent Marking Gauge, Rosewood, Oval Plated Head and Bar, Brass Thumb Screw and Shoe, Oval Bar, Marked, Adjusting Steel Point,  $\frac{1}{2}$  Dozen in a Box . . . . . " " 6 00

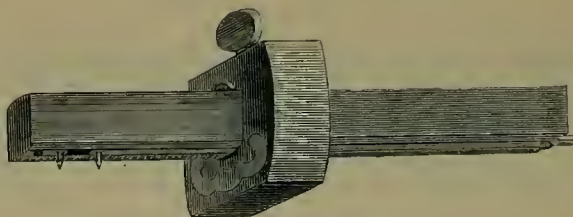


No. 71.

- No. 71. Patent Double Gauge (Marking and Mortise Gauge Combined), Beechwood, Polished, Plated Head and Bars, Brass Thumb Screws and Shoes, Oval Bars, Marked, Steel Points,  $\frac{1}{2}$  Dozen in a Box, Per Dozen, \$ 8 00
- No. 72. Patent Double Gauge (Marking and Mortise Gauge Combined), Beechwood, Polished, Boxwood Thumb Screws, Oval Bars, Marked, Steel Points,  $\frac{1}{2}$  Dozen in a Box . . . . . " " 4 00
- No. 74. Patent Double Gauge (Marking and Mortise Gauge Combined), Boxwood, Polished, Full Plated Heads and Bars, Brass Thumb Screws and Shoes, Oval Bars, Marked, Steel Points,  $\frac{1}{2}$  Dozen in a Box . . . . . " " 14 00
- 
- No. 83. Handled Slitting Gauge, 17-Inch Bar, Marked,  $\frac{1}{2}$  Dozen in a Box . . . . . " " 9 00
- No. 84. Handled Slitting Gauge, with Roller, 17-Inch Bar, Marked,  $\frac{1}{2}$  Dozen in a Box . . . . . " " 10 00

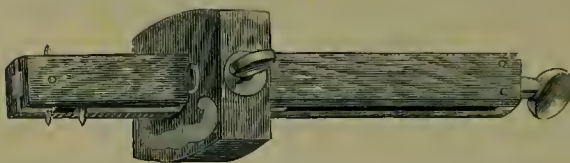


## Marking Gauges.



No. 73.

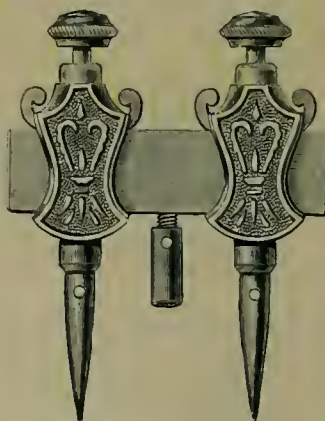
- |         |   |                    |
|---------|---|--------------------|
| No. 73. | Patent Mortise Gauge, Boxwood, Polished, Plated Head, Brass Slide, Brass Thumb Screw and Shoe, Oval Bar, Marked, Steel Points, $\frac{1}{2}$ Dozen in a Box . . . . . | Per Dozen, \$8 00  |
| No. 76. | Patent Mortise Gauge, Boxwood, Polished, Plated Head, Screw Slide, Brass Thumb Screw and Shoe, Oval Bar, Marked, Steel Points, $\frac{1}{2}$ Dozen in a Box . . . . . | Per Dozen, \$11 00 |
| No. 80. | Patent Mortise Gauge, Boxwood, Full Plated Head, Plated Bar, Screw Slide, Brass Thumb Screw and Shoe, Marked, Steel Points, $\frac{1}{2}$ Dozen in a Box . . . . .    | Per Dozen, \$18 00 |



No. 77.

- |                        |   |                    |
|------------------------|---|--------------------|
| No. 77.                | Patent Mortise and Marking Gauge, Rosewood, Plated Head, Improved Screw Slide, Brass Thumb Screw and Shoe, Oval Bar, Marked, Steel Points, $\frac{1}{2}$ Dozen in a Box . . . . . | Per Dozen, \$10 00 |
| No. 78.                | Patent Mortise Gauge, Rosewood, Plated Head, Screw Slide, Brass Thumb Screw and Shoe, Oval Bar, Marked, Steel Points, $\frac{1}{2}$ Dozen in a Box . . . . .                      | Per Dozen, \$11 00 |
| No. 79.                | Patent Mortise Gauge, Rosewood, Plated Head and Bar, Screw Slide, Brass Thumb Screw and Shoe, Marked, Steel Points, $\frac{1}{2}$ Dozen in a Box . . . . .                        | Per Dozen, \$13 00 |
| No. 85.                | Panel Gauge, Beechwood, Boxwood Thumb Screw, Oval Bar, Steel Point, 1 Dozen in a Box . . . . .  | Per Dozen, \$3 20  |
| No. 85 $\frac{1}{2}$ . | Panel Gauge, Rosewood, Plated Head and Bar Brass Thumb Screw, Steel Point, $\frac{1}{2}$ Dozen in a Box, Per Dozen, \$18 00   |                    |

## Improved Trammel Points.



These Tools are used by Millwrights, Machinists, Carpenters and all mechanics having occasion to strike arcs, or circles, larger than can be conveniently done with ordinary Compass Dividers. They are made of Bronze Metal and have Steel Points, either of which can be removed and replaced by the pencil socket which accompanies each pair should a pencil mark be preferred in laying out work.

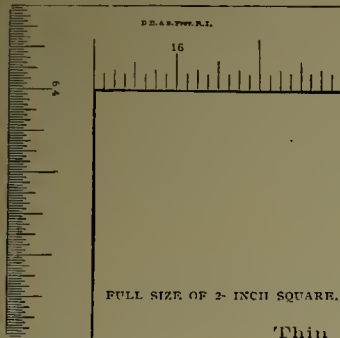
No. 1. Small, Bronze Metal, Steel Points . Per Pair, \$1 00 | No 2. Medium, Bronze Metal, Steel Points . Per Pair, \$1 25

No. 3. Large, Bronze Metal, Steel Points, Per Pair, \$1 75

# Machinists' Small Tools.

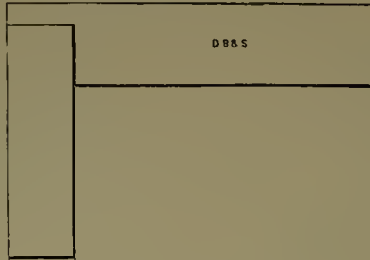
549

## THIN STEEL SQUARES FOR MACHINISTS AND DRAUGHTSMEN.

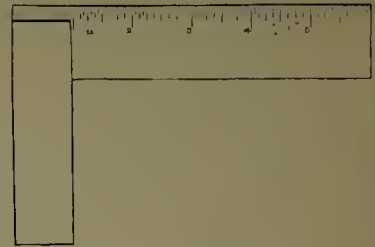


FULL SIZE OF 2-INCH SQUARE.

## PATENT HARDENED CAST STEEL TRY SQUARES FOR MACHINISTS.



## GRADUATED STEEL SQUARES FOR MACHINISTS.



(NOT HARDENED)

### Thin Steel Squares for Machinists and Draughtsmen.

Blade, Inch,	2	3	4	6	8	10
Thick, Inch,	1/20	1/16	1/14	1/14	1/12	1/10
Each,	\$1 00	1 50	2 00	3 00	4 00	5 00

The 2 and 3 inch are divided to 16ths and 64ths on one side, and 32ds and 64ths on the other.  
The 4, 6, 8 and 10 inch Squares are divided on both sides to 16ths and 32ds of inches.

### Patent Hardened Cast Steel Try Squares for Machinists.

Inch,	1 1/2	3	4 1/2	6	9	12	15	18	24	30	36
Each,	\$2 00	3 00	4 00	5 00	7 00	10 00	15 00	18 00	30 00	40 00	50 00

### Graduated Steel Squares for Machinists.

Inch,	3	4	6	9	12
Each,	\$2 00	2 50	3 50	6 00	7 00

## SCREW PITCH GAUGES.



Full Size.

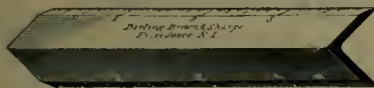
FOR 18 PITCHES.



FRANKLIN INSTITUTE THREAD. Two-Thirds Size.

FOR 25 PITCHES.

Price	\$1 00	Price	\$2 00
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## KEY SEAT RULE.

With this Rule parallel lines on shafts for Key Seats, Mortises, etc., can be readily and accurately drawn. Its uses are so obvious to machinists as to need no further description.

Price	\$2 50
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## STANDARD STEEL RULES.

Inch,	1	2	3	4	6	9
Each,	\$0 20	0 30	0 40	0 50	0 75	1 12
Inch,	12	18	24	36	48	
Each,	1 50	2 25	3 00	7 00	10 00	

## SHRINK RULES.

24 1/4 Inch Steel Rule Shrink on one side and standard on the other. Divided on each side to 10, 20, 50, 100, 12, 24, 48, 16, 32, 64, parts of an inch. Price, \$5 00
24 1/4 Inch Steel Rule Shrink on both sides. No. 1 Graduation. Price, \$5 00
24 1/4 Inch Boxwood Rule Shrink on both sides. No. 1 Graduation. Price, \$3 00

# Small Tools for Machinists, Architects, Etc.

## TRIANGULAR STEEL RULES.



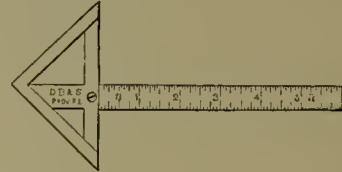
Inch,	3	4	6	12
Each, \$	0 50	0 70	1 00	2 50

### GRADUATIONS.

16, 64, 100 to the inch whole length.  
 16, 32, 64 " " " " "  
 20, 50, 100—12, 24, 48—16, 32, 64 to the inch.

The 12 inch are divided only as follows: 8, 10, 12, 14, 16, 20, 24, 28, 48, 50, 64, 100 to the inch.

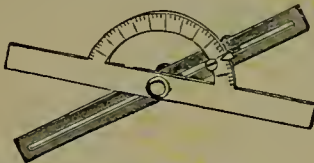
## UNIVERSAL OR CENTER SQUARES.



Inch,	4	6	8	10	12
Each, \$	2 00	2 50	3 50	5 00	6 00

## BEVEL PROTRACTOR.

WITH SLIDING ARM AND HALF CIRCLE DIVIDED TO DEGREES.



Price, with 6 Inch Sliding Arm	\$6 50
" " 10 " " "	7 00

## CENTER GAUGE.

AND GAUGE FOR GRINDING AND SETTING SCREW TOOLS.



HALF SIZE.

Price	\$0 30
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## TRIANGULAR BOXWOOD SCALES.

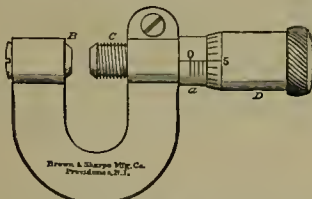


Nos. 63, 64 and 65 for Architects and Mechanical Draughtsmen.

Nos.		Each.
63.	24 Inch Triangular Boxwood Rule, Divided to Scales of $\frac{1}{8}$ , $\frac{1}{4}$ , $\frac{3}{8}$ , $\frac{1}{2}$ , 1, $1\frac{1}{2}$ , 3, 2 and 4 In. to the Ft. and 16ths of an Inch,	\$5 00
64.	12 Inch Triangular Boxwood Rule, ditto, with $\frac{3}{16}$ and $\frac{3}{32}$ , instead of 2 and 4 Inch to the Foot	2 00
65.	6 Inch Triangular Boxwood Rule, ditto	1 50
72.	24 Inch Triangular Boxwood Rule, on one edge to 10ths, 20ths, 30ths, 40ths, 50ths, 60ths of an Inch	5 00
73.	12 Inch Triangular Boxwood Rule, " " " " " " " " " " "	2 00
75.	6 Inch Triangular Boxwood Rule, " " " " " " " " " " "	1 50

Nos. 72 and 73 are divided either 10 to 60 or 20 to 80.

## POCKET SHEET METAL GAUGE.

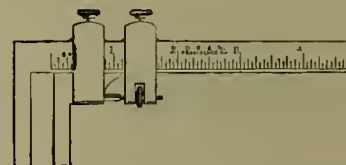


FULL SIZE.

These Gauges will measure the thickness of sheet metal or other material, by thousandths of an inch up to three-tenths of an inch at any point within half an inch of the edge, and can be applied as easily as the common gauge. It will also answer to measure the diameter of wire. Means of adjustment are provided in case of wear by continued use.

Price, \$4 00 In Morocco Case, \$4 50

## CALIPER SQUARES.



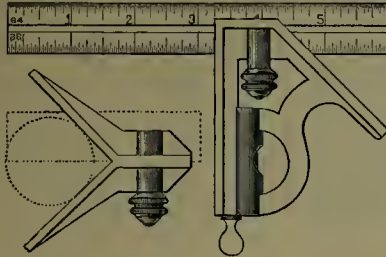
One side divided to 64ths, the other to roots of inches.

2 Inch, Without Adjusting Screw	\$ 2 25
4 " " " " "	3 50
9 " " " " "	9 00
2 " With " " Like Cut	3 50
4 " " " " " "	4 50
9 " " " " " "	11 50



# "Starrett's" Combination Square, and Transfer Caliper.

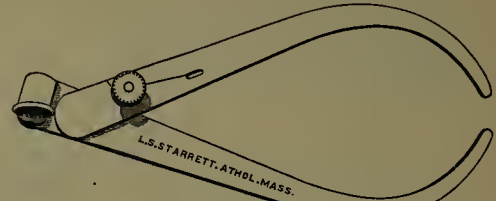
PATENT COMBINATION SQUARE.



Every Tool Warranted Accurate. With the Adjustable Scale, this forms one of the most convenient and useful tools ever devised for mechanics' use. One is a complete substitute for a whole set of common try squares, and is one of the best Gauges ever made for transferring exact measurement or laying out work. It is also convenient for a depth Gauge or to square in a mortise. For a Mitre, it is perfect, while with the auxiliary center head it forms a centering square, both inside and outside, which for convenience and accuracy has no equal.

Price Per Set, 12 Inch, with Center Head	\$3 50
" " " 9 " " " "	3 00
" " " 6 " " " "	2 50

LOCK-JOINT TRANSFER CALIPER.



This instrument in addition to common use may be used inside of chambered cavities, over flanges, etc., removed and replaced without losing the size calipered. This is done by loosening the nut, binding one arm to auxiliary leaf and swinging it out or in (while the joint is locked) to clear the obstruction, then moving it back again against a stop where it will show the exact size measured.

6 Inch, Outside	\$1 50
10 " " "	2 00
12 " " "	2 50

## "Starrett's" Patent Surface Gauge.

SURFACE GAUGE.

ADVANTAGES OVER OTHERS.

FIRST.—Easily obtaining friction to prevent the scriber from moving, by means of a tapering eye bolt drawn into a socket.

SECOND.—In having stock taken from base, allowing scriber to extend through for depth gauge, while, with bent end down work may be laid out close to base.

THIRD.—In the final and accurate adjustment of the scriber, the spindle passing through a nut in the base, to raise or lower the same.

This Gauge has recently been improved by splitting the sleeve. The nut on the eye bolt draws the split together, clamping it to the spindle, making it impossible to work loose.

There has also been put a helical spring on end of spindle in the base, which serves to take up all back lash in the adjusting nut.

No. 1. 8 Inches	\$2 50
No. 2. 12 " "	3 50

## Improved Micrometer Caliper.

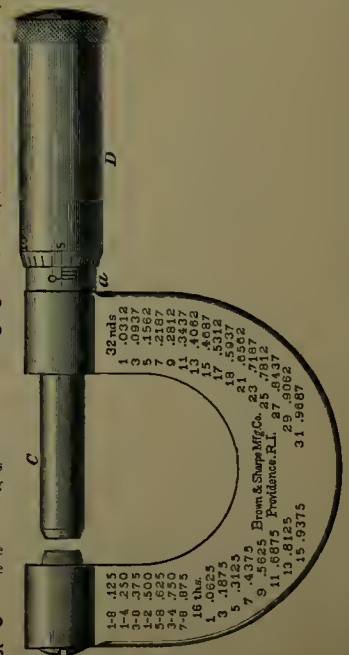
This Caliper having the decimal equivalents of 8ths, 16ths, 32ds and 64ths of an inch stamped on its frame, they are always in sight, thus avoiding vexatious delays.

The screw-thread not being exposed, there is no liability of its injury.

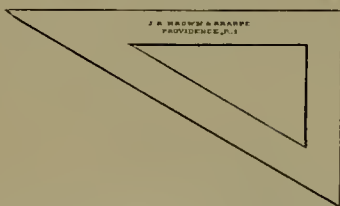
To adjust Nut (to compensate for any wear) withdraw graduated sleeve D to end of Arm, sufficient only to apply the small wrench accompanying the instruments.

1 Inch, without Case	\$5 00
1 Inch, with Morocco Case	5 75

MICROMETER CALIPER.



## Tools for Draughtsmen, Surveyors, Etc.

OPEN STEEL  
TRIANGLES FOR DRAUGHTSMEN.

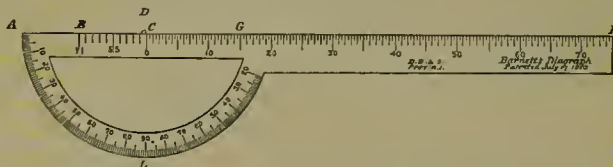
Angles, 45, 45 and 90 degrees. Large Size, Sides 8, 8 and 11 1/4 Inch, 3/4 Inch Wide. Price, \$4 00  
 Small Size, Sides 5, 5 and 7 1/16 Inch, 5/8 Inch Wide. Price, \$3 00  
 Angles, 30, 60 and 90 degrees. Large Size, Sides 6, 10 3/8 and 12 Inch, 3/4 Inch Wide. Price, \$4 00  
 Small Size, Sides 3 1/2, 6 1/16 and 7 Inch, 5/8 Inch Wide. Price, \$3 00  
 Thickness 1/16 Inch.

## DRAUGHTSMEN'S T SQUARE.



Extreme Length of Head 8 1/4 Inch Diameter of Arc 4 1/2 Inch. Divided to half degrees. Blade, 1 1/4 Inch Wide, 3/64 Inch Thick. The Heads are made of Bronze, and the Blades of Steel.  
 Price, with 36 Inch Blade . . . \$14 00

## THE DIAGRAPH.



The Diagraph is a new and valuable invention for drawing diagrams and platting surveys, by which the rapidity of platting is increased *fourfold*. With the addition of compasses for circles, it will be found an improvement upon an entire box of ordinary surveyor's instruments, doing the same work with greater accuracy and facility. Professors and teachers will find it well adapted for instruction in drawing and platting.

The diameter of the circle is 4 inch, and the whole length of the instrument 9 1/2 inch. It is made of German silver.

Price . . . \$2 50 | In Morocco Case . . . \$3 50

## Wire Gauges.

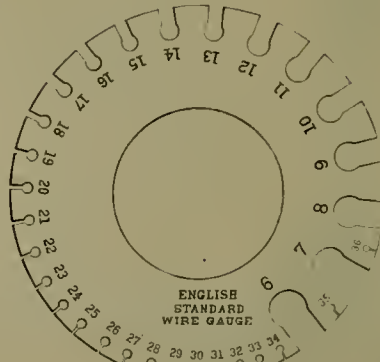
## U. S. STANDARD.

Adopted by the Brass Manufacturers, January, 1858.



Full Size.

## "STUBS" ENGLISH.



Full size

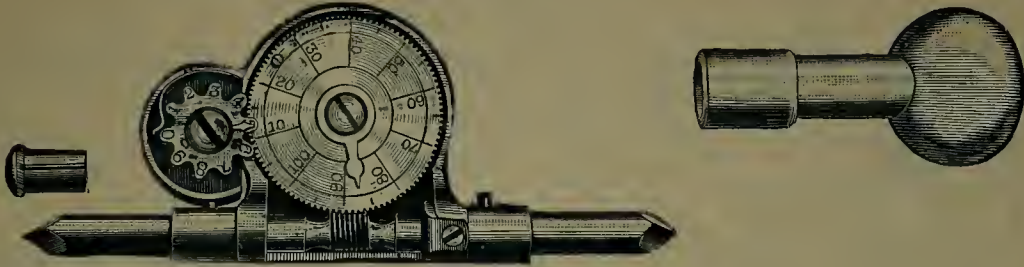
Round Gauge, 0 to 36 Inch . . . Each, \$3 50  
 " " 5 " 36 " . . . " 2 50

Round Gauge, 1 to 26 Inch . . . Each, \$3 00  
 Double " 1 " 36 " . . . " 3 25

# Speed Indicators.

PATENTED IMPROVED DOUBLE SPEED INDICATOR.

EITHER RIGHT OR LEFT.

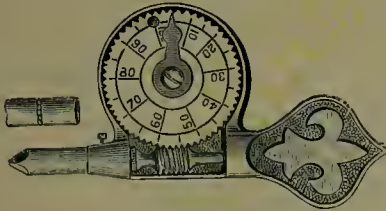


Indicates 1,000 Revolutions

Each, \$2 00

POCKET SPEED INDICATOR.

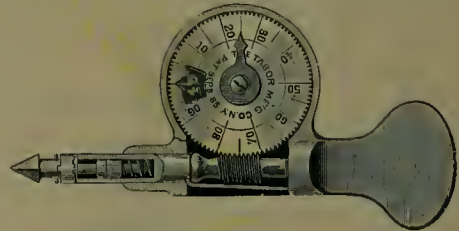
"TABOR'S" REVOLUTION COUNTER.



Full Size.

Pocket Speed Indicator.

Nickel-Plated, Indicates 100 Revolutions



With Stop Motion

Each, \$1 00

"Tabor's" Revolution Counter.

The urgent need of a *good*, simple stop motion Revolution Counter, that can be put upon the market at a price low enough to be within the reach of all mechanics, has led us to bring out this little instrument.

HOW TO READ THE DIALS.

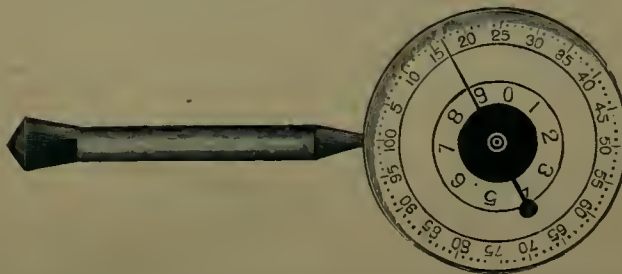
The upper dial is graduated from 0 to 100, and registers units; the lower dial is graduated from 0 to 50, and registers hundreds, making a continuous count of 5,000 possible.

The reading on the under dial is through the opening in the upper dial. The index finger indicates the count on the upper dial; for instance, if the point in the opening through the upper dial indicates 45 on the lower dial, and the index finger points to 25 on the upper dial, the reading will be 4,525 revolutions.

Price

Each, \$1 50

THE "LIGHTNING" SPEED INDICATOR.



It registers as high as 1,000, as seen by the cut, which is actual size. Can be held at any angle, making it very convenient for Dynamo machines and the like. Has a silver-plated dial and the face covered with a watch crystal. Satisfaction guaranteed or money refunded.

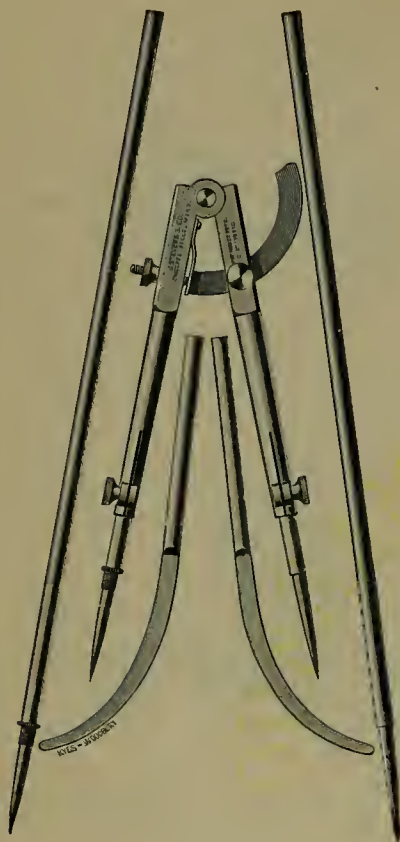
Price

Each, \$2 50



"STODDARD'S"

## Patent Caliper and Dividers.



The best and most handy tool for a carpenter made, and no one who has once used them will go without them. As the cut shows it consists of a pair of heavy hinged divider legs swinging on a slide with spring attached, which by the two screws can be regulated to any width.

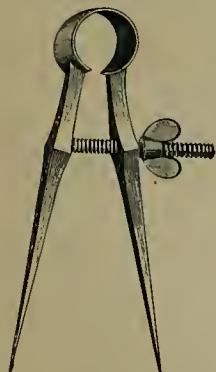
To these legs are fitted two sets of divider points, one pair  $5\frac{1}{2}$  and one 14 inches long. One of each pair of divider legs has a reversible point which unscrews and by being reversed a pencil can be placed in same, and used for drawing circles.

Also, there is a pair of caliper legs which fits the same stock, and as they will caliper 16 inches, are invaluable for turning pulleys, and in fact all large caliper work in a shop. With the long divider legs a 5 foot circle can be struck. These tools are made of brass and finely finished.

Nickel-Plated.

Per Set, Complete . . . . . \$4 50

## SPRING DIVIDERS.



Length, to In., 6 7 8  
Per Dozen, \$5 50 6 50 7 50

## FINE POLISHED CAST STEEL DIVIDERS.



Length, to Inch,	6	7	8	10	12	15	18	24
Per Dozen, \$	5 50	6 50	7 50	10 00	12 00	18 00	25 00	36 00

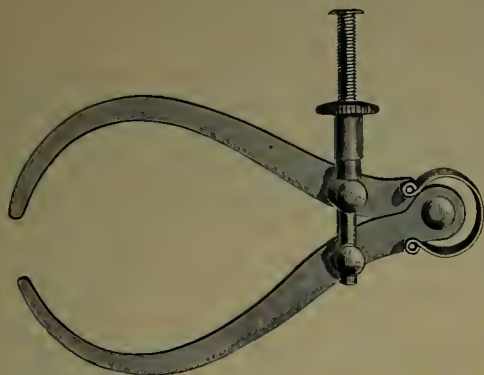
## FINE POLISHED CAST STEEL COMPASSES.



Length, to Inch,	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6
Per Dozen, \$	4 25	4 35	4 50	4 60	4 80	5 50

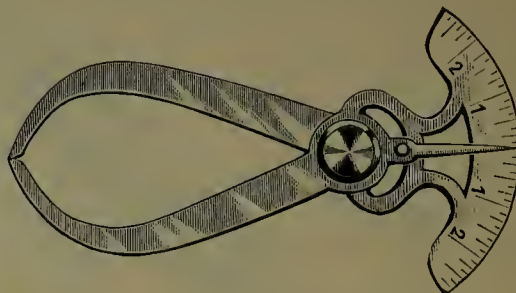
## Calipers.

## "WRIGHT'S" CALIPERS.



Length, Inch,	5	6	7
Per Dozen, \$	15 00	18 00	20 00

## SELF-REGISTERING CALIPERS.



Length, Inch,	3	5	6
Per Dozen, \$	7 50	11 00	13 50

## FINE POLISHED CAST STEEL DOUBLE CALIPERS.



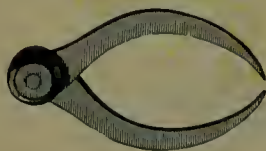
Length, Inch,	2½	4	6
Per Dozen, \$	5 50	7 00	8 50

## FINE POLISHED CAST STEEL WING CALIPERS.



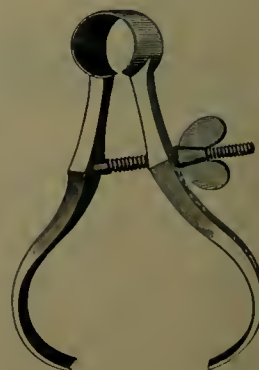
Length, Inch,	5	6	8	10	12	15	18
Per Dozen, \$	7 75	8 25	11 00	13 75	16 50	27 50	41 25

## FINE POLISHED CAST STEEL INSIDE OR OUTSIDE CALIPERS.



Length, Inch,	2½	4	6	9	12
Per Dozen, \$	5 00	6 50	8 00	11 00	15 00

## SPRING CALIPERS.



Length, to In.,	6	7	8
Per Dozen, \$	6 00	7 00	8 00

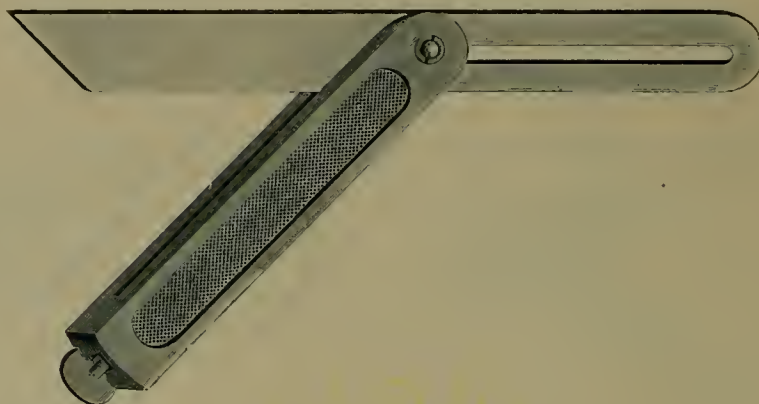
## FINE POLISHED INSIDE CALIPERS, STRAIGHT LEG.



Length, Inch,	4	6	9	12
Per Dozen, \$	6 50	8 00	11 00	15 00

# Bevels and Squares.

PATENT "EUREKA" FLUSH T BEVEL.

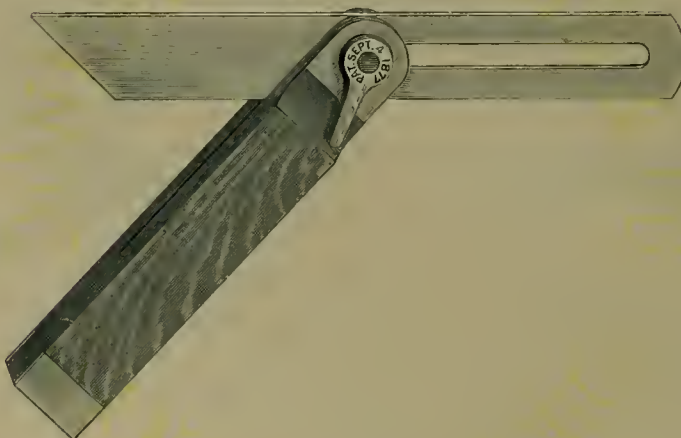


Inch, 6  
Per Dozen, \$6 00

8  
6 50

10  
7 50

SLIDING T BEVEL, WITH FLUSH LEVER.



Inch, 6  
Per Dozen, \$5 50

8  
6 00

10  
6 50

12  
7 00

14  
7 50



STEEL SQUARES.

No. 100	1	2	3	4
Per Dozen, \$66 00	48 00	44 00	35 00	33 50
No. 5	7	10	12	14
Per Dozen, \$32 50	30 00	22 50	30 00	25 50

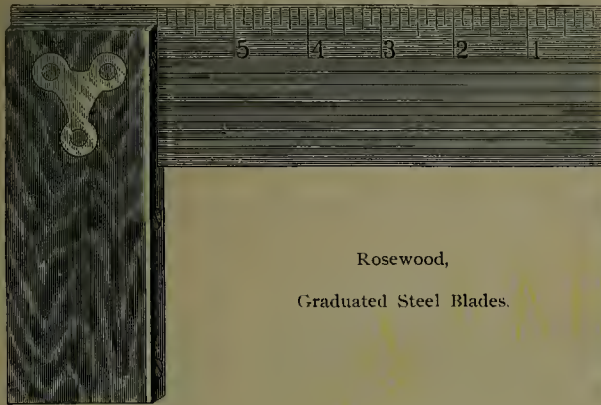
IRON SQUARES.

No. 1	2	4
Per Dozen, \$6 00	10 00	14 00



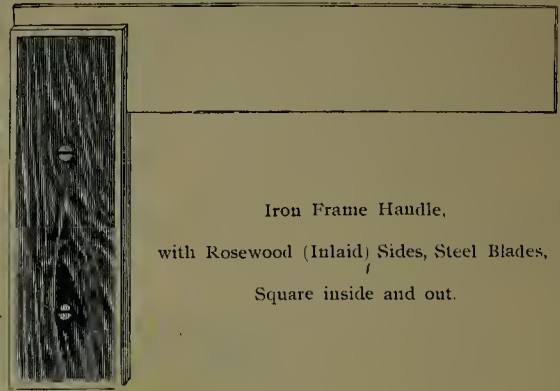
# Try and Mitre Squares.

## TRY SQUARE.



Rosewood,  
Graduated Steel Blades.

## IMPROVED TRY SQUARE, No. 1.

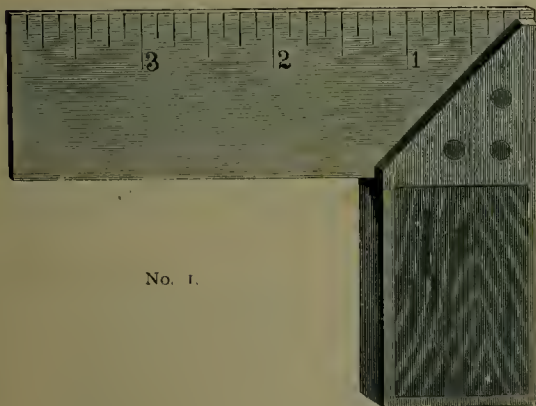


Iron Frame Handle,  
with Rosewood (Inlaid) Sides, Steel Blades,  
Square inside and out.

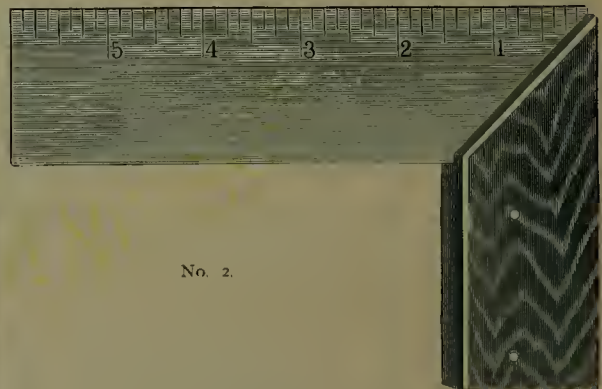
Inch,	3	4½	6	7½	9	10	12
Per Dozen,	\$3 00	3 75	5 00	5 75	6 50	7 50	8 50

Inch,	3	4	6	8	9	10	12
Per Dozen,	\$6 00	7 00	9 00	11 50	13 00	16 00	20 00

## "WINTERBOTTOM'S" PATENT COMBINED TRY AND MITRE SQUARE.



No. 1.



No. 2.

This Tool can be used with equal convenience and accuracy, as a Try Square, or a Mitre Square. By simply changing the position of the handle, and bringing the mitred face at the top of the handle against one edge of the work in hand, a perfect mitre, or angle of 45 degrees, can be struck from either edge of the blade.

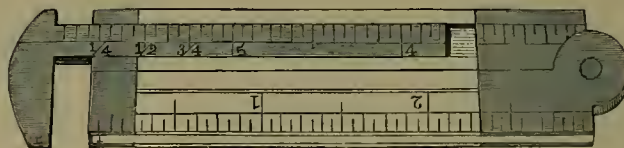
No. 1. Iron Frame Handle, with Black Walnut (Inlaid) Sides, Graduated Steel Blades, Square inside and out.

Inches,	4	6	8
Per Dozen,	\$6 00	7 50	9 00

No. 2. Rosewood Handle, Graduated Steel Blades, Square inside and out.

Inches,	4½	6	7½	9	12
Per Dozen,	\$4 50	5 00	6 00	7 00	9 00

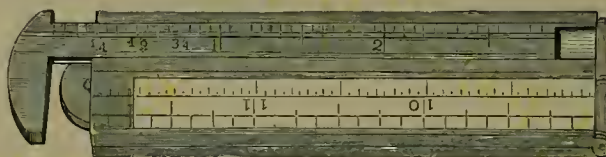
## Boxwood Rules—Caliper.



No. 95. 6 Inch, Square Joint.

6 Inch, with 8ths and 16ths.

No. 95.	Square Joint, Two Fold, 6 Inch, 7/8 Inch Wide	Per Dozen, \$ 7 00
No. 96.	" " " " 6 " Brass Case, 7/8 Inch Wide	" " 8 00
No. 97.	" " " " Bound, 6 Inch, 7/8 Inch Wide	" " 12 00
No. 100.	" " " " 6 Inch, 1 3/8 Inch Wide	" " 12 00



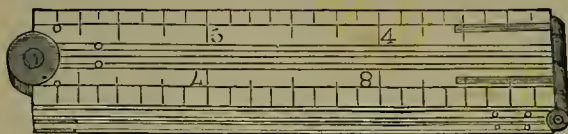
No. 99. 12 Inch Square Joint.

12 Inch, with 8ths and 16ths.

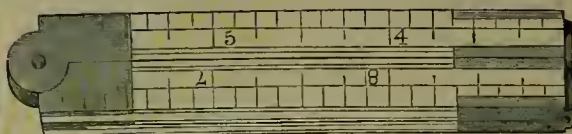
No. 98.	Square Joint, Edge Plates, Four Fold, 12 Inch, 7/8 Inch Wide	Per Dozen, \$12 00
No. 99.	" " Bound, " " 12 " 7/8 " Wide	" " 20 00

## Boxwood Rules.

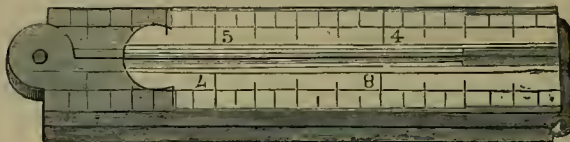
ONE FOOT. FOUR FOLD. NARROW.



No. 70. Round Joint.



No. 72. Square Joint.



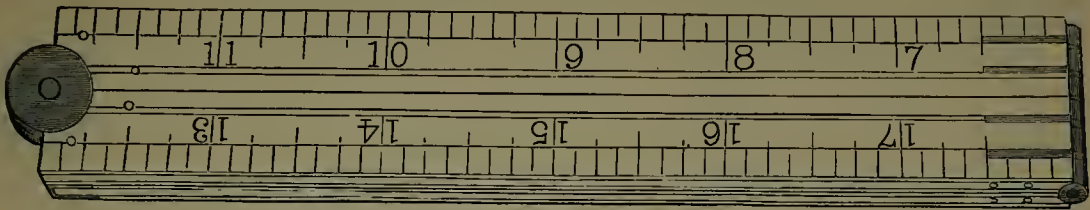
No. 75. Arch Joint.

No. 70.	Round Joint, Middle Plates, 8ths and 16ths, 5/8 Inch Wide	Per Dozen, \$ 3 00
No. 71.	Square " " " " 5/8 " "	" " 3 50
No. 72.	" " Edge Plates, " " " 5/8 " "	" " 5 00
No. 72½.	" " Bound " " " 5/8 " "	" " 11 00
No. 73.	Arch " Middle Plates, " " " 5/8 " "	" " 4 00
No. 74.	" " Edge Plates, " " " 5/8 " "	" " 6 00
No. 75.	" " Bound " " " 5/8 " "	" " 12 00

# Boxwood Rules.

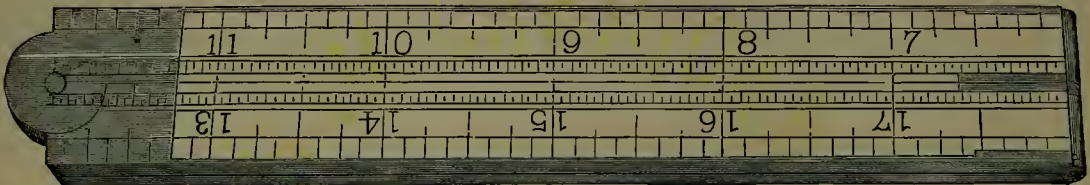
559

TWO FEET. FOUR FOLD.



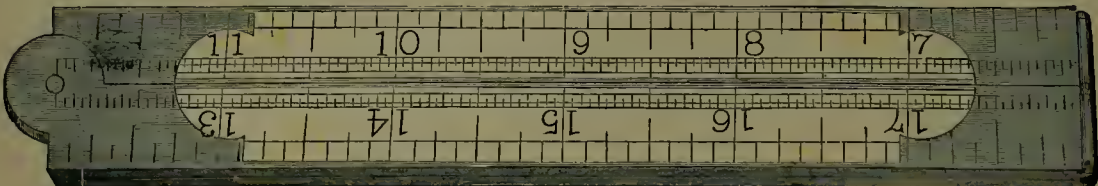
No. 41. Round Joint, Middle Plates.

No. 41.	Round Joint, Middle Plates, 8ths and 16ths, 1	Inch Wide	Per Dozen, \$4 00
No. 42.	Square	" " " " " " 1 " "	" " 5 00
No. 44.	" " " " " " " 3/4 " "	Extra Narrow	" " 5 50



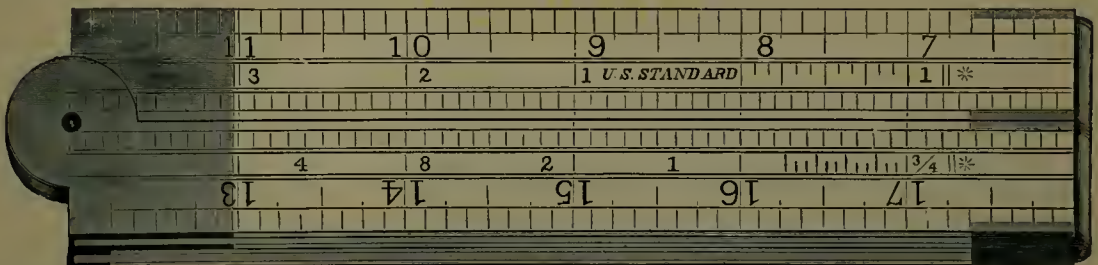
No. 42 1/2. Square Joint, Half Bound.

No. 42 1/2.	Square Joint, Half Bound, 8ths, 12ths, and 16ths, 1	Inch Wide	Per Dozen, \$12 00
No. 42 1/2.	" " Bound	" " " " " 1 " "	" " 15 00



No. 50. Double Arch Joint.

No. 50.	Double Arch Joint, Middle Plates, 8ths, 12ths, and 16ths, 1	Inch Wide	Per Dozen, \$9 00
No. 52.	" " " Bound	" " " " " 1 " "	" " 21 00



No. 56. Square Joint, Edge Plates.

No. 54.	Square Joint, Middle Plates, 8ths and 16ths, 1 3/8	Inch Wide	Per Dozen, \$7 00
No. 56.	" " Edge " 8ths, 16ths and Scales, 1 3/8	Inch Wide	" " 9 00
No. 54 1/2.	" " Bound	" " " " " 1 3/8 " "	" " 18 00

TWO FEET. FOUR FOLD. BROAD.—BOARD MEASURE.

No. 61.	Square Joint, Edge Plates, 12ths, 16ths and Scales, 1 3/8	Inch Wide	Per Dozen, \$11 00
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# Ivory Rules—Caliper.



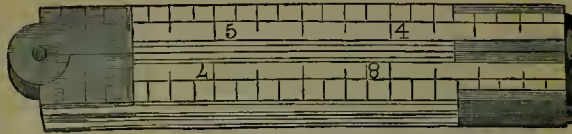
No. 97 1/2.



No. 98 1/2.

										Per Dozen.
No. 97 1/2.	Square Joint, German Silver, Bound,	Two Fold,	6-in.,	8ths,	10ths,	12ths	and	16ths,	Slide in 32ds, 7/8 in. Wide,	\$30 00
No. 98 1/2.	" " " " " "	Edge Plates, Four	12-in.,	8ths,	10ths,	12ths	"	16ths,	" " " 7/8 " "	38 00
No. 99 1/4.	" " " " " "	Bound,	12-in.,	8ths,	10ths,	12ths	"	16ths,	" " " 5/8 " "	44 00
No. 99 1/2.	" " " " " "	"	12-in.,	8ths,	10ths,	12ths	"	16ths,	" " " 7/8 " "	48 00

## Ivory Rules.



No. 91. Square Joint.

### IVORY RULES. ONE FOOT, FOUR FOLD.

										Per Dozen.
No. 91.	Square Joint, German Silver, Edge Plates, 8ths, and 16ths, 1/2 in. Wide									\$17 00
No. 91 1/2.	" " " " " " " 8ths, 10ths, 12ths and 16ths, 3/8 in., Wide									23 00
No. 92.	" " " " " " " Bound, 8ths, 10ths, 12ths and 16ths, 5/8 " "									28 00

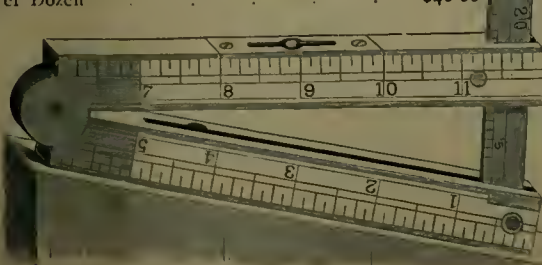
### IVORY RULES. TWO FEET, FOUR FOLD.

										Per Dozen.
No. 77.	Square Joint, German Silver, Edge Plates, 8ths, 10ths, 12ths and 16ths of inches, and 100ths of a foot, 3/4 in. Wide									\$54 00
No. 78.	" " " " " " " Bound, 8ths, 10ths, 12ths and 16ths " " 3/4 in. Wide									72 00
No. 83.	Arch Joint, " " " " Edge Plates, 8ths, 12ths and 16ths of inches, 100ths of a foot, and Drafting Scales, 1 in. Wide									64 00
No. 84.	Arch Joint, German Silver, Bound, 8ths, 12ths and 16ths of inches, and Drafting Scales, 1 in. Wide									80 00
No. 86.	Double Arch Joint, German Silver, Bound, 8ths, 12ths and 16ths of inches, and Drafting Scales, 1 in. Wide									92 00

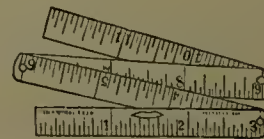
## "Stephens" Patent Combination Boxwood Rule.

No. 36. Square Joint, Bound (Level, Square, Plumb, etc.),  
1 3/8 Inches Wide.

Per Dozen \$40 00

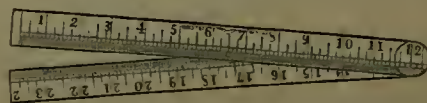


## "Chesterman's" Steel Folding Rules.



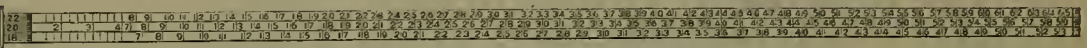
Made from No. 20 tempered spring steel. Can be bent around  
3 inch circle; folds into 3 inch.

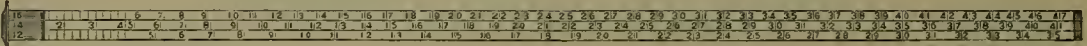
Size, 1 foot . Each, \$0 25 | Size, 2 feet . Each, \$0 50



Half Inch Wide, 1 Joint, 1 foot long . . . Each, \$0 30

## Board and Log Measures.

No. 43½	
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No. 49	
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No. 48	
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NOTE.—Nos. 43½, 48, and 49 give the contents in Board Measure of 1 inch Boards.

DIRECTIONS.—Place the stick across the flat surface of the Board, bringing the inside of the Cap snugly to the edge of the same; then follow with the eye the Column of figures in which the length of the Board is given as the first figure under the Cap, and at the mark nearest the opposite edge of the Board will be found the contents of the Board in feet.

NOTE.—The Log Measure (No. 48½) has Doyle's Revised Tables, and gives the number of feet of one inch square edge boards, which can be sawed from a log of any size, from 12 to 36 inches in diameter, and of any length. The figures immediately under the head of the Cane, are for the lengths of Logs in feet. Under these figures, on the same line at the mark nearest the diameter of the Log, will be found the number of feet the Log will make.

No. 43½.	Board Stick, Flat, Hickory, Cast Brass Head and Tip, 6 Lines, 12 to 22 Feet	3 Ft. Long, Per Doz., \$12 00
No. 49.	Board Stick, Flat, Hickory, Steel Head, Brazed, Extra Strong, 6 Lines, 12 to 22 Feet	3 " " " 26 00
No. 48.	Walking Cane, Board Measure, Octagon, Hickory, Solid Cast Brass Head and Tip, 8 Lines, 9 to 16 Feet	3 " " " 12 00
No. 48½.	Walking Cane, Log Measure (Doyle's Revised), Octagon, Hickory, Solid Cast Brass Head and Tip	3 " " " 15 00

## Miscellaneous Articles.

### BENCH RULES.

No. 34.	Bench Rule, Maple, Brass Tips	2 Feet Long, Per Dozen, \$3 00
No. 35.	" " Board Measure, Brass Tips	2 " " " 6 00

### PATTERN MAKERS' SHRINKAGE RULES.

No. 30.	Pattern Makers' Shrinkage Rule, Boxwood, 8ths and 16ths of Inches,	24¼ Inches Long, Per Dozen, \$15 00
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### WANTAGE AND GAUGING RODS.

No. 44.	Wantage Rod, 8 Lines	Per Dozen, \$5 00
No. 37.	" " 12 "	" " 7 00
No. 45.	Gauging " 120 Gallons	3 Feet Long, " " 7 00
No. 45½.	" " 180 " and Wantage Tables	4 " " " 18 00

### YARD STICKS.

No. 33.	Yard Stick, Polished	Per Dozen, \$2 00
No. 41.	" " Brass Tips, Polished	" " 3 50
No. 50.	" " Hickory, Brass Capped Ends, Polished	" " 4 50

### FREIGHT STICKS.

5 Feet Long, with Brass Hook	Per Dozen, \$18 00
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# “Chesterman’s” Tape Lines.



FLUSH HANDLE



FOLDING HANDLE

DESCRIPTION.		Length, Feet,	25	33	50	75	100
No. 33 L.	Lineu Tape, Folding Handle	Each,	....	....	\$2 25	\$2 60	\$ 3 25
No. 34 L.	Metallic Wire Woven, Folding Handle	"	\$1 80	\$2 25	2 60	3 40	4 25
No. 34 FH.	" " " Flush "	"	2 00	2 40	2 80	3 60	4 60
No. 28 L.	Steel Tape, Flush Handle	"	4 50	5 60	7 75	12 00	15 00

## Spring Steel Tapes on Stop Plated Cases.

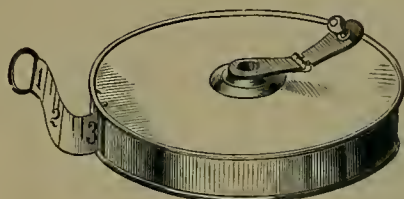
No. 36 &c.

Feet, 3	6	9	12
Each, \$1 35	2 30	2 75	3 00

# American Tape Lines.

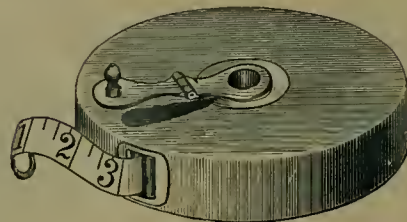
ASSES' SKIN, BRASS BOUND CASE.

WITH FOLDING HANDLES.



PATENT LEATHER CASE.

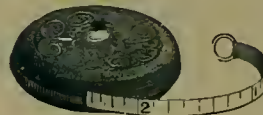
WITH FOLDING HANDLES.



	Feet,	25	50	75	100
<b>Cotton,</b> Per Dozen,	\$3	75	5 00	7 00	9 00
<b>Linen,</b> " " "	5 00	8 00	10 00	12 50	

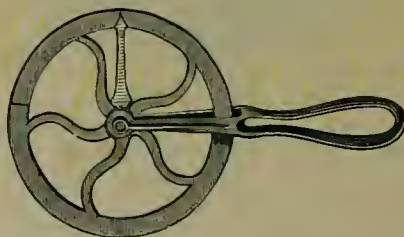
	Feet,	25	50	75	100
<b>Cotton,</b> Per Dozen,	\$3	75	5 00	7 00	9 00
<b>Linen,</b> " " "	5 00	8 00	10 00	12 50	

## Pocket Spring Measuring Tapes.



No. 24.	3 Feet, Linen Tape, Silver Plated Case	Per Dozen, \$5 25
No. 25.	5 " " " " " "	" " 5 50
No. 26.	3 " " " Plastic Case	" " 5 25
No. 27.	5 " " " " " "	" " 5 50

## Tire Measuring Wheel.



The index hand saves trouble of marking with chalk, and the whole, made of metal, is light, accurately fixed, handy and strong.

Price . . . . . \$1 50

## Tracing or Copying Wheels.



6 Inch Long . . . . . Per Dozen, \$1 25

# Table of Measures, Wire Gauges, Etc.

## TABLE OF DECIMAL EQUIVALENTS

OF

8ths, 16ths, 32ds and 64ths of an Inch.

FOR USE IN CONNECTION WITH

BROWN &amp; SHARPE MAN'G CO.'S

MICROMETER CALIPER.

8ths.	9/32 = .28125	19/64 = .296875
1/8 = .125	11/32 = .34375	21/64 = .328125
1/4 = .250	13/32 = .40625	23/64 = .359375
3/8 = .375	15/32 = .46875	25/64 = .390625
1/2 = .500	17/32 = .53125	27/64 = .421875
5/8 = .625	19/32 = .59375	29/64 = .453125
3/4 = .750	21/32 = .65625	31/64 = .484375
7/8 = .875	23/32 = .71875	33/64 = .515625
16ths.	25/32 = .78125	35/64 = .546875
1/16 = .0625	27/32 = .84375	37/64 = .578125
3/16 = .1875	29/32 = .90625	39/64 = .609375
5/16 = .3125	31/32 = .96875	41/64 = .640625
7/16 = .4375	64ths.	43/64 = .671875
9/16 = .5625	1/64 = .015625	45/64 = .703125
11/16 = .6875	3/64 = .046875	47/64 = .734375
13/16 = .8125	5/64 = .078125	49/64 = .765625
15/16 = .9375	7/64 = .109375	51/64 = .796875
32ds.	9/64 = .140625	53/64 = .828125
1/32 = .03125	11/64 = .171875	55/64 = .859375
3/32 = .09375	13/64 = .203125	57/64 = .890625
5/32 = .15625	15/64 = .234375	59/64 = .921875
7/32 = .21875	17/64 = .265625	61/64 = .953125
		63/64 = .984375

## Different Standards for Wire Gauge in use in the United States.

DIMENSIONS OF SIZES, IN DECIMAL PARTS OF AN INCH.

Number of Wire Gauge.	American, or Brown & Sharpe.	Birmingham, or Stubbs.	Washburn & Moen Mfg Co., Worcester, Mass.	Trenton Iron Co., Trenton, N. J.	G. W. Prentiss, Holyoke, Mass.	Number of Wire Gauge.
0	.32945	.34	.307	.305	.2994	0
1	.2893	.3	.283	.285	.2777	1
2	.25763	.284	.263	.265	.2591	2
3	.22942	.259	.244	.245	.2401	3
4	.20431	.238	.225	.225	.223	4
5	.18194	.22	.207	.205	.2047	5
6	.16202	.203	.192	.19	.1885	6
7	.14428	.18	.177	.175	.1758	7
8	.12849	.165	.162	.16	.1605	8
9	.11443	.148	.148	.145	.1471	9
10	.10189	.134	.135	.13	.1351	10
11	.090742	.12	.12	.1175	.1205	11
12	.080808	.109	.105	.105	.1065	12
13	.071961	.095	.092	.0925	.0928	13
14	.064084	.083	.08	.08	.0816	14
15	.057068	.072	.072	.07	.0726	15
16	.05082	.065	.063	.061	.0627	16
17	.045257	.058	.054	.0525	.0546	17
18	.040303	.049	.047	.045	.0478	18
19	.03589	.042	.041	.04	.0411	19
20	.031961	.035	.035	.035	.0351	20
21	.028462	.032	.032	.031	.0321	21
22	.025347	.028	.028	.028	.029	22
23	.022571	.025	.025	.025	.0261	23
24	.0201	.022	.023	.0225	.0231	24
25	.0179	.02	.02	.02	.0212	25

## Long Measure.

12 inches	= 1 foot.
3 feet	= 1 yard.
5½ yards or 16½ feet	= 1 rod.
320 rods or 5280 feet	= 1 statute mile.
1.152¾ statute miles	= 1 geographical mile.
3 geographical miles	= 1 league.
60 geographical miles	= 1 degree.
360 degrees circumference of the earth.	
4 inches 1 hand.	
6 feet 1 fathom.	

## Square Measure.

144 square inches	= 1 square foot.
9 square feet	= 1 square yard.
30¼ square yards	= 1 square rod.
160 square rods	= 1 acre.
640 acres	= 1 square mile.

## Surveyors' Square Measure.

625 square links	= 1 square pole.
16 poles	= 1 square chain.
10 square chains	= 1 acre.
640 acres	= 1 square mile.
6 miles square	= 1 township.

## Cubic Measure.

1728 cubic inches	= 1 cubic foot.
27 cubic feet	= 1 cubic yard.
16 cubic feet	= 1 cord foot.
8 cord feet or 128 cubic feet	= 1 cord wood.

## The Metric System.

### MEASURES OF LENGTH.

Metric Denominations and Values.	Equivalents in Denominations in use.
Myriameter = 10,000 meters	= 6,2137 miles.
Kilometer = 1,000 meters	= 0.62137 m. or 3,280 feet 10 inches.
Hectometer = 100 meters	= 328 feet and 1 inch.
Dekameter = 10 meters	= 39.37 inches.
Meter = 1 meter	= 39.37 inches.
Decimeter = .1 of a meter	= 3.937 inches.
Centimeter = .01 of a meter	= 0.3937 inch.
Millimeter = .001 of a meter	= 0.0394 inch.

### MEASURES OF SURFACE.

Metric Denominations and Values.	Equivalents in Denominations in use.
Hectare = 10,000 square meters	= 2.471 acres.
Arc = 100 square meters	= 110.6 square yards.
Centare = 1 square meter	= 1.550 square inches.

### MEASURES OF CAPACITY.

Metric Denominations and Values.		Equivalents in Denominations in use.		
Names.	No. Liters.	Cubic Measure.	Dry Measure.	Wine Measure.
Kiloliter	= 1,000	= 1 cubic meter	= 1.358 cubic yards	= 264.17 gallons.
Hectoliter	= 100	= .1 cubic meter	= 2 bush. 3.38 pks.	= 26.417 gallons.
Decaliter	= 10	= 10 c. decimeters	= 9.08 quarts.	= 2.6417 gallons.
Liter	= 1	= 1 c. decimeter	= 0.908 quart.	= 1.0567 quarts.
Deciliter	= .1	= .1 c. decimeter	= 6.102 cubic inch.	= 0.845 gill.
Centiliter	= .01	= 10 c. centimeters	= 0.6102 cubic inch.	= 0.38 fluid oz.
Milliliter	= .001	= 1 c. centimeter	= 0.061 cubic inches	= 0.27 fluid dr.



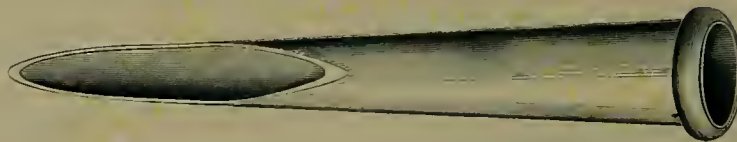
## Cheese Tryers.



Sizes, Inch,	4	5	6
Japanned Handle, Polished Blades,	Per Dozen, \$3 25	3 50	4 00
Nickel-Plated Handles and Blades,	" " 4 75	5 00	5 50

**Butter Tryers, Steel Blade, 24 Inch** . . . . . Per Dozen, \$24 00

## Grain Tryers.



Brass, 5 1/2 Inch Long,	Per Dozen, \$10 50	Steel, 5 1/2 Inch Long	Per Dozen, \$12 00
" 5 1/2 " " Plated	" " 12 00		

**Coffee Tryers, with Cap** . . . . . Per Dozen, \$15 00

## Wrought Seamless Brass Ferrules.



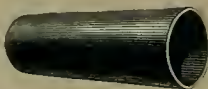
Sizes, Inch,	7/16	1/2	9/16	5/8	3/4	7/8	1
Per Gross,	\$0 50	0 60	0 65	0 75	0 90	1 25	1 90

## Cast Brass Ferrules.



Sizes, Inch,	1/2	9/16	5/8	3/4	7/8	15/16	1
Per Gross,	\$3 50	4 50	5 00	7 00	10 50	11 00	12 00

## Cane or Umbrella Ferrules.



SOLID ENDS. STEEL.

Assorted to 3/4 Inch . . . . . Per Gross, \$6 00

## American Garden Trowels.



Inch,	5	6	7	8
Per Dozen,	\$1 50	1 65	1 80	2 10

## English Garden Trowels.

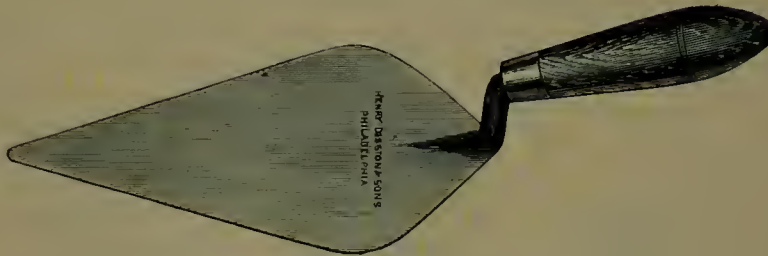
SOLID CAST STEEL, WELDED SHANK.



6 Inch	Per Dozen, \$7 50	7 Inch	Per Dozen, \$9 00
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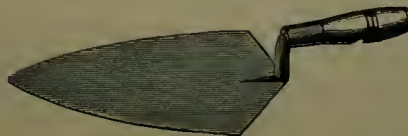
## Brick Trowels.

"DISSTON'S" LONDON PATTERN.



Inch,	9	10	11	12	13	14
Per Dozen,	\$9 00	10 00	11 00	12 00	13 50	15 00

## "Rose Bros." Trowels.



Inch,	10	11	12	13	14
Per Dozen,	\$13 25	14 25	15 25	16 25	17 25

## Trowels.

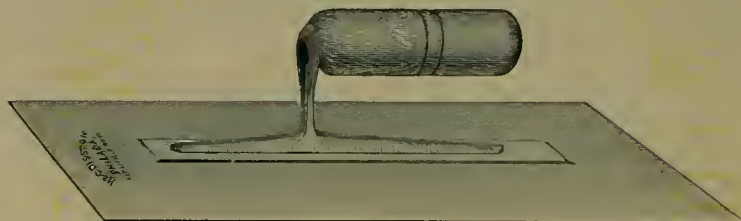
## Pointing Trowels.



SOLID SHANK.

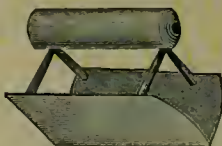
Inch, 4	4½	5	5½	6
Per Dozen, \$4 25	4 50	4 75	5 00	5 25

## Plastering Trowels.



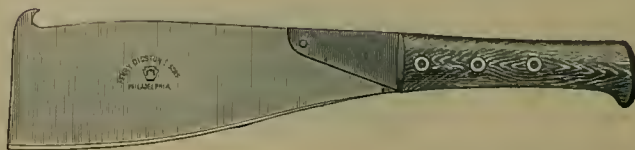
Inch, 10 and 10½	11	11½	12
Per Dozen, \$12 25	13 50	14 50	15 75

## Corner Trowels.



Six Inch	Per Dozen, \$9 00
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## Cast-Steel Cane Knives.



Per Dozen	\$10 00
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# Carpet Stretchers.

"BULLARD'S"



Bullard's Patent

Per Dozen, \$6 00

SOCKET POLISHED.

JAPANNED POLISHED BLADES.



Socket, Solid Cast Steel

Per Dozen, \$9 00

Japanned Polished Blade

Per Dozen, \$3 00

" Blade Riveted on

" " 6 00

## Box, Hay and Potato Hooks.



Style of Nos. 2, 4 and 9.



No. 5.



Style of Nos. 6, 7 and 11.



Potato Hook, No. 10.

No. 2. Black Handle Hook, 8 Inch, per Dozen, \$4 00	No. 7. California Hay Hook, 6 Inch, per Dozen, \$5 00
No. 4. Cartmen's Box " 6 " " " 4 25	No. 9. " Box " 5 " " " 4 00
No. 5. " " " 8 " " " 5 00	No. 10. " Potato " 2 Prongs, " " 8 00
No. 6. Western Hay " 5½ " " " 4 25	No. 11. Eureka Hay " 7 Inch, " " 6 00

## Box Scrapers.

WARRANTED ALL SOLID CAST STEEL.



"A." Solid Cast Steel . . . Per Dozen, \$6 00

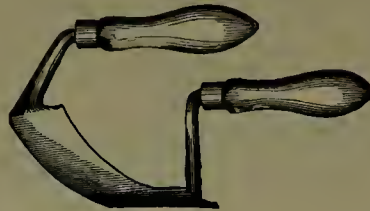
Half Dozen in a Box.



"B." Cast Steel Blades . . . Per Dozen, \$6 00

Half Dozen in a Box.

Double Handle Box Scrapers.



"C." Cast Steel . . . . . Per Dozen, \$6 50

Long Handle Box Scrapers.



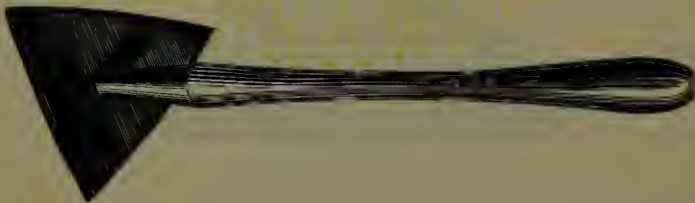
"D." . . . . . Per Dozen, \$12 00

Reversible Box Scrapers.



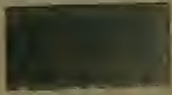
Per Dozen . . . . . \$7 00

Ship Scrapers.



No. 1.	Blades $\frac{1}{4}$ Inch Thick, Iron and Steel Welded	Per Dozen, \$9 00
No. 2.	" from No. 14 Best Cast Steel	" " 7 00
No. 3.	" " " 14 Steel, Black Sockets	" " 4 50

Cabinet Scrapers.



Assorted . . . . . Per Dozen, \$1 25



## Butchers' Block Scrapers.



Cast Steel Blades, Oil Tempered

Per Dozen, \$6 00

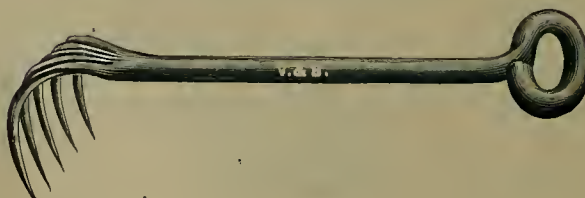
## Cast Steel Hog Scrapers.



Made of No. 18 Sheet Steel

Per Dozen, \$4 00

## Wrought Nail Claws.



5 Fingers .

Per Dozen, \$9 00

## "Pratt's" Patent Tube Cleaner.



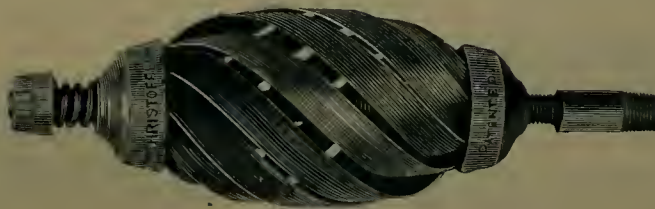
To Inch,	2	2 ¼	2 ½	2 ¾	3	3 ¼	3 ½	3 ¾	4
Each, \$2 00		2 25	2 50	2 75	3 00	3 25	3 50	3 75	4 00

## "Felthousen" Adjustable Flue Scraper.



Inch,	2	2 ¼	2 ½	3	3 ½	4	6
Each, \$2 00		2 25	2 50	3 00	3 50	4 00	10 00

## Elliptic Spring Tube Scraper.



To Inch,	2	2 ¼	2 ½	2 ¾	3	3 ¼	3 ½	3 ¾	4
Each, \$2 00		2 25	2 50	2 75	3 00	3 25	3 50	3 75	4 00

## "Dudgeon's" Improved Tube Expanders.



Will Expand Three Sizes of Tubes, without Changing the Rollers.

Will answer for any Thickness of Tube Sheets.

Will Expand 1½ and 1¼ Inch				Each, \$20 00	Will Expand 3¼, 3⅜ and 3½ Inch				Each, \$60 00		
"	"	1¾	1⅞	"	20 00	"	"	3½, 3⅝	3¾	"	70 00
"	"	1⅞	2	"	25 00	"	"	3¾, 3⅞	4	"	75 00
"	"	2, 2¼ and 2½ Inch		"	30 00	"	"	4, 4½	4¾	"	80 00
"	"	2¼, 2½	2½	"	36 00	"	"	4¾, 4⅝	4½	"	85 00
"	"	2½, 2⅝	2¾	"	39 00	"	"	4½, 4⅝	4¾	"	85 00
"	"	2¾, 2⅞	3	"	45 00	"	"	4¾, 4⅞	5	"	90 00
"	"	3, 3⅛	3¼	"	52 00	"	"	4¾, 4⅞	5	"	90 00

## Standard Roller Tube Expanders.



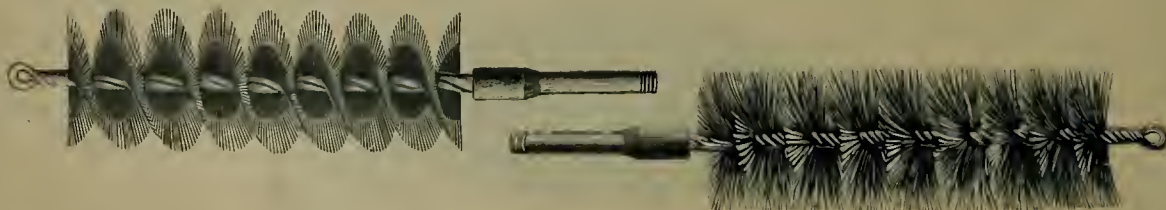
WILL EXPAND ONE SIZE ONLY.

For Tubes, Inch,	1	1¼	1½	1¾	2	2¼	2½	2¾	3	3¼	3½	3¾	4
Each, \$14 00	14 00	14 00	14 00	16 00	19 00	22 00	25 00	28 00	31 00	34 00	37 00	40 00	

## Tube Brushes or Cleaners.

GALVANIZED STEEL.

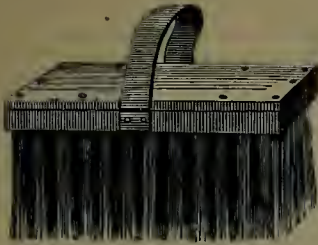
WHALEBONE.



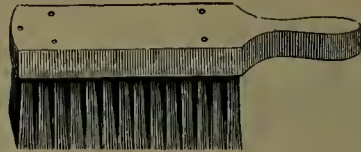
To Inch,	2	2¼	2½	2¾	3	3¼	3½	4
Steel Brushes, Each,	1 25	1 40	1 50	1 60	1 75	2 00	2 25	2 50
Whalebone " "	1 00	1 15	1 25	1 40	1 50	1 60	1 75	2 00



# Steel Casting Brushes.



No. 4.



No. 5.



No. 6.

No. 4. Square, with Leather Straps.

Rows,	4	4	4	4	4
Length of Wire, Inch,	2	2½	3	4	5
Per Dozen,	\$5 50	6 00	6 50	7 50	8 50

No. 5. Square, with Handle.

Rows,	2	3	4
Length of Wire, Inch,	2½	2½	2½
Per Dozen,	\$4 00	5 00	6 00

No. 6. Round.

Length of Wire, 6 Inch . . . . . Per Dozen, \$9 00

## File Brushes or Cleaners.



File Card, Large Size

Per Dozen, \$3 00

File Card, Small Size

Per Dozen, \$2 00



File, Brush and Card

Per Dozen, \$4 50

# Oil Stones, Grindstones, Etc.

ROUND EDGE OR GOUGE SLIPS.



OIL STONES.



OIL STONES.



<b>Tam O'Shanter</b> Oil Stone . . . . .	Per lb, \$0 40	<b>Tam O'Shanter</b> Oil Slips . . . . .	Per lb, \$0 60
<b>Arkansas</b> Oil Stone . . . . .	Per lb, \$3 00	<b>Washita</b> Oil Stone . . . . .	Per lb, \$0 35
" Oil Slips . . . . .	" " 3 60	" Oil Slips . . . . .	" " 0 60
<b>Washita</b> Eucased Oil Stone . . . . .	Per Dozen, \$10 00		
<b>Hindostan</b> Oil Stone . . . . .	Per lb, \$0 10	<b>Hindostan</b> Oil Slips . . . . .	Per lb, \$0 20
<b>Hindostan</b> Axe Bits . . . . .	Per lb, \$0 10		
<b>Shoemakers'</b> Sand Stone . . . . .	Per lb, \$0 10		

"UNION" EMERY STONES AND STANDS.



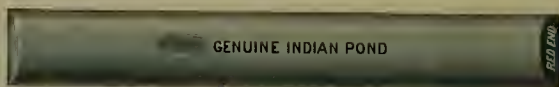
THE UNION OIL STONES are superior to the best Natural Stones for sharpening edge-tools, cleaning castings, polishing pulleys, or finishing iron, steel or brass work in vise or lathe. They cut faster and finish smoother than emery cloth, sticks or files, and will not scratch the work.

Size of Stones about 8 x 1 1/4 x 1 . . . . . Per Dozen, \$9 00

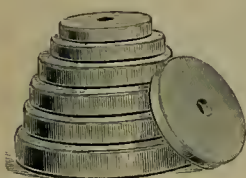
No. 120 is for whetting carpenters' and other tools, and will produce a fine edge. It is equal to dead-smooth cut files for fine finish. F is for pattern makers, and is a little finer than 120.

**Stands Only** . . . . . Per Dozen, \$6 00

RED END "INDIAN POND" SCYTHE STONES.



1/4 Gross in a Box . . . . . Per Gross, \$7 50



GRINDSTONES.

We keep in stock a full line of BEREHA, HURON AND NEWCASTLE GRINDSTONES.

The latter grade we import expressly for use in Foundries and Machine Shops.

Assorted sizes in stock, from 12 to 60 inches diameter . . . . . Per Pound, \$ . . .

## Grindstones—Assorted.

THE "CHALLENGE."



Diameter of Stone, 8 Inch, Thickness, $1\frac{1}{4}$ Inch, Height from Floor, 3 Feet	Price Complete, Each, \$5 00
" " " 10 " " $1\frac{1}{2}$ " " " 3 "	" " " 6 50

"CLEVELAND" PATTERN.



8 Inch, with Trough	Each, \$2 25	10 Inch, with Trough	Each, \$2 75
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## Grindstones—Assorted.

"SAMSON."



PRICE EACH, COMPLETE.

No. 1. Stone Weighs 100 to 110 Pounds	\$6 00	No. 2. Stone Weighs 70 to 80 Pounds	\$5 00
No. 3. Stone Weighs 40 to 50 Pounds	\$4 50		

"IMPROVED READING."



6 Inch	Each, \$1 50	8 Inch	Each, \$1 75
10 Inch	Each, \$2 50		

## Grindstones.

## TO FIND THE WEIGHT.

Square the diameter (in inches), multiply by thickness (in inches), then multiply by decimal .06363.

EXAMPLE: Find the weight of a stone 4 feet 6 inches in diameter and 7 inches thick. 4 feet 6 inches = 54 inches; square of 54 = 2,916; multiplied by 7 = 20,412; multiplied by .06363 = *Answer*, 1,298.815 lbs, which is weight of stone.

## AVERAGE WEIGHT OF STONES TWO FEET AND LARGER.

THICKNESS, INCHES.	2	2½	3	3½	4	4½	5	6	7	8	10	12
DIAMETER, INCHES.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
24	73	91	110	128	146	164	183	219	256	293	366	439
27	92	116	139	162	185	208	231	278	324	371	463	556
30	114	143	171	200	229	257	286	343	400	458	572	687
33	138	173	207	242	277	311	346	415	485	554	692	831
36	164	206	247	288	329	371	412	494	577	659	824	989
39	193	241	290	338	387	435	483	580	677	774	967	1161
42	...	280	336	392	448	505	561	673	785	897	1122	1346
45	...	...	386	451	515	579	644	773	901	1030	1288	1546
48	...	...	...	513	586	659	733	879	1026	1172	1466	1759
51	...	...	...	...	662	744	827	993	1158	1324	1655	1986
54	...	...	...	...	...	834	927	1112	1298	1484	1855	2226
60	...	...	...	...	...	...	...	1374	1603	1832	2290	2748
66	...	...	...	...	...	...	...	...	1940	2217	2771	3326
72	...	...	...	...	...	...	...	...	...	2638	3298	3958

To find the circumference of a circle, the diameter being given: Multiply the diameter by 3.1416.

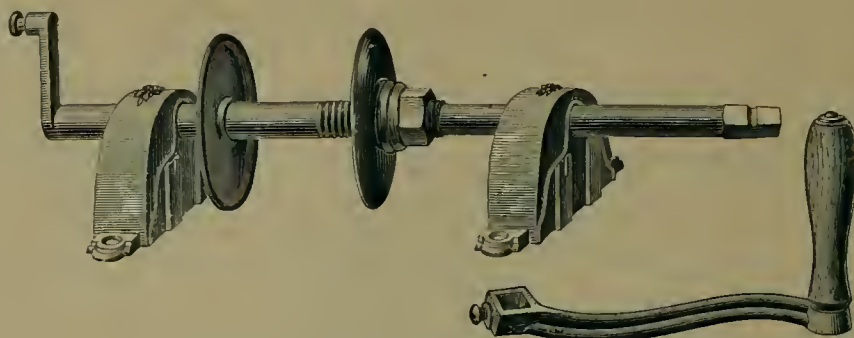
To find the diameter of a circle the circumference being given: Divide the circumference by 3.1416.

To find the area of a circle, the diameter being given: Multiply the square of the diameter by .7854.

To find the area of a circle, the diameter and circumference both being given: multiply the diameter and circumference together, and divide the product by 4.

To find the cubic contents of a cylinder, the diameter and length being given: Multiply the square of the diameter by .7854 and the product by the length.

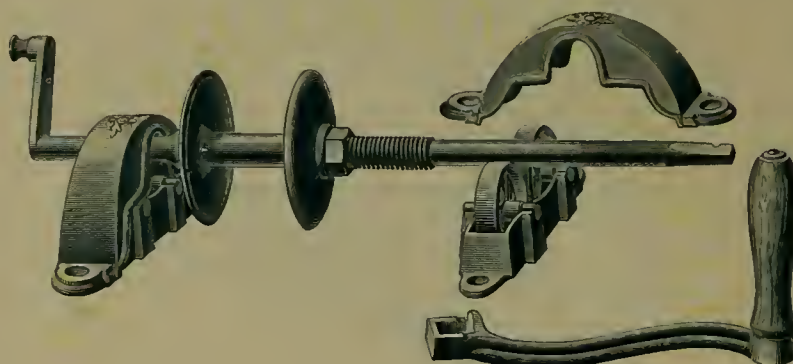
## Grindstone Fixtures.



Style of Nos. 20, 21, 22 and 23.

## Heavy, Japanned, Incased Rollers.

No. 20. Shaft 24 Inches Long	Per Dozen, \$25 00	No. 22. Shaft 17 Inches Long	Per Dozen, \$18 50
No. 21. " 19 " " "	" " 21 00	No. 23. " 15 " " "	" " 15 60



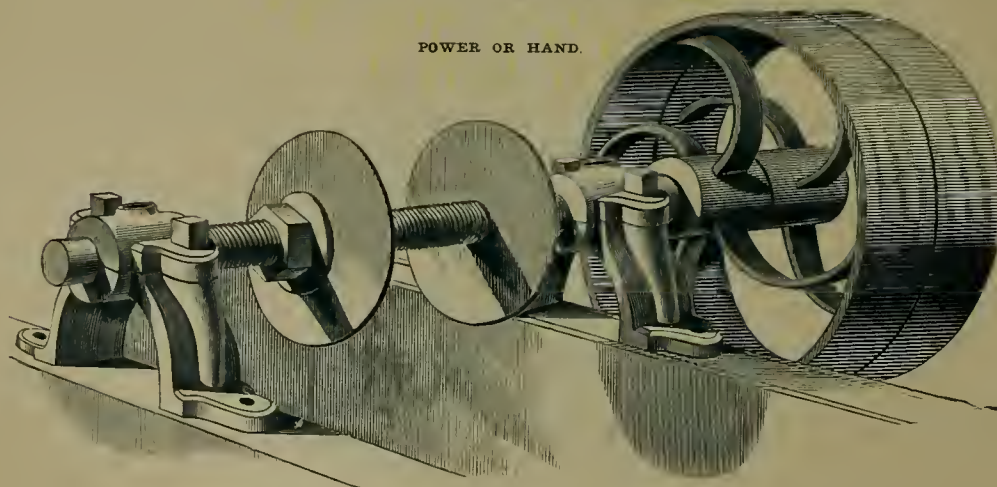
Style of Nos. 50, 51, 52 and 53.

## Japanned, Incased Rollers.

No. 50. Shaft 24 Inches Long	Per Dozen, \$20 00	No. 52. Shaft 17 Inches Long	Per Dozen, \$15 00
No. 51. " 19 " " "	" " 17 50	No. 53. " 15 " " "	" " 14 00
No. 100. Extra Heavy, Suitable for Stones 200 to 400 lbs Weight		Each, \$6 00	

## PATENT GRINDSTONE SHAFT.

POWER OR HAND.



Furnished with a Crank for Hand Use.

Suitable for Stone 36 x 4 Inches, with Pulleys 12 Inch Diameter and 3 Inch Face

Each, \$12 00



# Genuine Scotch Glass Tubes for Water Gauges.

WATER GAUGE GLASSES were first introduced into the United States by MR. E. H. ASHCROFT, of Boston, in the year 1854. The rapidly increasing demand for them has led to the introduction into this market of a variety of inferior tubes. The glasses IMPORTED BY THE ASHCROFT MANUFACTURING CO. are made from carefully selected materials, insuring strength, enabling them to bear great variations of temperature, and preventing them from changing color.

They are parallel, of uniform thickness, and will bear from 500 to 1,000 lbs pressure to the square inch, according to size.

## CAUTION.

Never allow a glass tube to come in contact with ANY METAL, as it makes it liable to break into atoms. This may occur immediately, or not for days after.



## ENAMELED

## WATER GAUGE GLASSES.

The attention of Engineers is specially called to the improvement of the Enameled Back Gauge Glass over that of the Plain or ordinary glass now in use. As shown in the illustration, the height of the water in the tube can be seen at a glance. All users of Water Gauges will at once appreciate the value of this improvement.

It is advisable to set them in front of a dark background. If artificial light is required, place it directly in front of the tube.



## PRICE LIST

OF

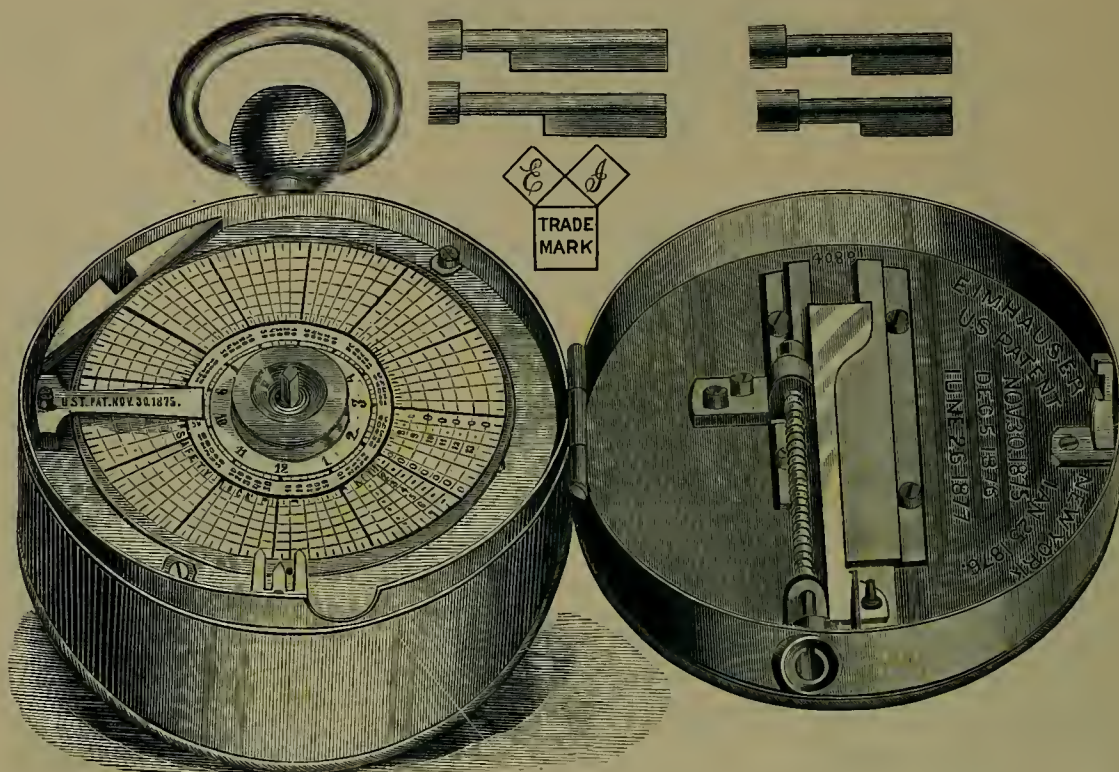
## Plain and Enameled Back Glass Tubes.

PER DOZEN.

EXTERNAL DIAMETER.	LENGTH IN INCHES.																
	10	11	12	13	14	15	16	17	18	19	20	22	24	30	36	48	60
1/2 inch, o. d.	\$ 4 80	4 80	5 40	5 40	6 00	6 60	7 20	7 80	8 40	9 00	9 60	10 80	12 00	16 00	20 00	24 00	36 00
3/8 " "	4 80	4 80	5 40	5 40	6 00	6 60	7 20	7 80	8 40	9 00	9 60	10 80	12 00	16 00	20 00	24 00	36 00
3/4 " "	6 60	6 60	6 60	6 60	7 20	7 20	7 80	8 40	9 00	9 60	10 20	11 40	12 60	18 00	24 00	36 00	48 00
7/8 " "	8 40	8 40	8 40	8 40	8 40	9 00	9 60	10 20	10 80	11 40	12 00	15 00	18 00	24 00	30 00	48 00	60 00
1 " "	10 80	10 80	10 80	10 80	10 80	10 80	10 80	11 40	12 00	13 20	15 00	18 00	24 00	31 20	39 00	60 00	72 00

# "Imhauser's" Watchman's Improved Time Detector.

WITH SAFETY LOCK ATTACHMENT.



The marking apparatus in these instruments is placed in the cover of the case, separately from the watch movement, which is thereby protected from injury by dust getting in through the key-hole. This is a great advantage over other watchmen's clocks, having the marking springs for pricking holes on the dial not separated from the time movements.

## THE SAFETY LOCK ATTACHMENT

is a recent improvement of great importance, being a safeguard against tampering with the record; it consists of a stationary knife placed inside the cover in such a position that every time the cover is closed or opened, the edge of the dial card is cut, making a nick on the rim about one-eighth of an inch deep, and showing the exact time when so cut. From the number of the cuts and their time it will be easy to detect any tampering by opening the cover. Without this attachment, any detector would not be assured against false records by dishonest watchmen.

With the watch there are twelve different keys, which are fastened, one at each post where the watchman is to call during his round. Keys, Nos. 1 to 6, mark a figure between the circles 1, 2, 3, 4, 5, 6, on the dial card, and keys, Nos. 7 to 12, mark a figure on the lines of the circles, so making a clear registration, not a confused one, as is the case with other detectors having records made by punching holes in the dial card.

The watchman entering upon his duties in the evening receives the detector locked and in the leather pouch. The watch being previously wound and supplied with a fresh dial card, care taken to place the nut on the arbor in the center, according to the marks on the nut and arbor. The watch will run about sixty hours.

Arriving at any station, the watchman inserts the key he finds fastened there, through the pouch into the key-hole on the rim of the watch opposite the ring, and turns the key round to the right, once, and withdraws it; a figure will be stamped on the dial in such a position as will show the precise time of the registration.

On delivering the watch in the morning, the person in charge can see at a glance how often and when the rounds have been made during the night; whether every station has been visited or any neglected, what space of time elapsed between the different visits, etc.; in short, it tells the history of the night's doings of the watchman.

Parties purchasing these instruments should test them sufficiently in the office to their entire satisfaction.

These Watch Clocks are as reliable as the best lever watch, and are warranted, in every case, to be in perfect and complete order, and any trusty watchmaker can clean and repair them.

Price, with Pouch, Box of Dials, and Twelve Different Keys for Twelve Stations, Complete

\$75 00



# Thermometers.

TIN CASE. JAPANNED.

Inch, 7	8	10	12
Per Dozen, \$5 00	5 50	6 50	8 00

## DAIRY.

Marked for Churning, Cheese and Scalding.

No. 20. Bright Tin Case, Zinc Scale.

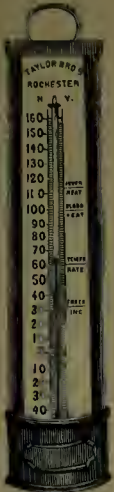
8 Inch	Per Dozen, \$6 00	10 Inch	Per Dozen, \$7 00
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## BREWERS' AND ENGINEERS'.

Copper Case, 12 Inch	Per Dozen, \$24 00
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## Salinometers.

Per Dozen	\$12 00
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TIN CASE.



DAIRY.

# Pyrometers.



USED FOR

Bakers' Ovens, Oil and Tar Stills, Drying and Japan Ovens, Boiler Flues, Chimneys, Etc., Etc

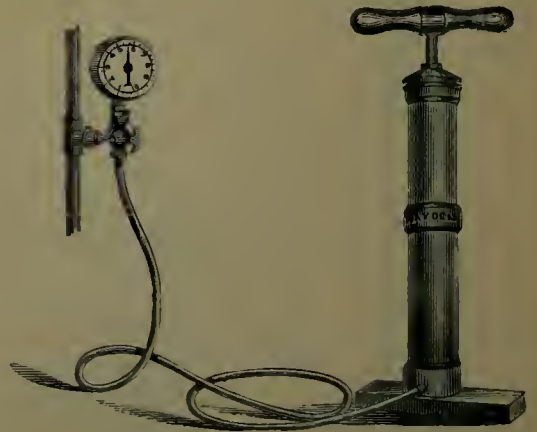
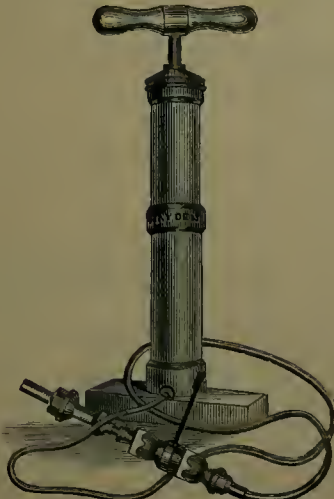
This Pyrometer correctly indicates temperatures to 800 degrees Fahrenheit, by the Expansion of its metallic stem.

Price	Each, \$30 00
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# Gas Proving Pumps.

WITH MERCURY GAUGE.

WITH AIR GAUGE.



Price	Each, \$18 00	Price	Each, \$16 00
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## Plumbers' Force Pumps.



New Pattern

Each, \$10 00

## Patent Rotary Pump.

USED FOR PUMPING WINE, OIL AND OTHER LIQUIDS FROM  
TANKS INTO BARRELS, CASKS, Etc.

This Cut represents the Patent Rotary Barrel Pump, with the Patent Barrel Attachment and Iron  
Pipe connected to the same, complete.

Fig. A.



Fig. A shows a small Iron Hook Pipe, which is sent with the Barrel Pump, to connect to the  
end of the hose from the Pump, and to hook it on to the can or tank which is being pumped into.

Hose and Extra Lengths of Pipe furnished to order at market prices.

DESCRIPTION.	No. of Revolutions Per Minute.	No. of Gallons per Revolution	Size of Pipe. Inch.	Price. Iron.
No. 1 Barrel Pump, with Iron Pipes and Patent Attachment Complete . . .	80 to 100	1.10	1	\$18 00
No. 2 Barrel Pump, with Iron Pipes and Patent Attachment Complete . . .	80 to 100	1.5	1	25 00



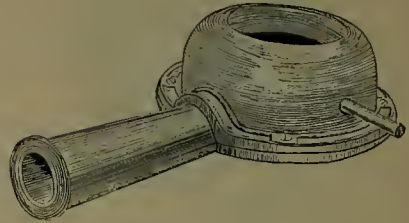
## Tuyere Irons.

"DUCK'S" NEST.



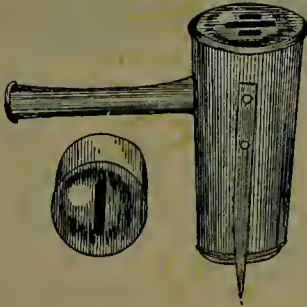
Size	20	B
Weight, Lbs	14	16
Each	\$1 00	1 25

"CLARK'S" PATENT.



Size,	1	2	3	4
Weight, Lbs,	16	20	30	40
Each,	\$2 00	2 50	3 00	5 00

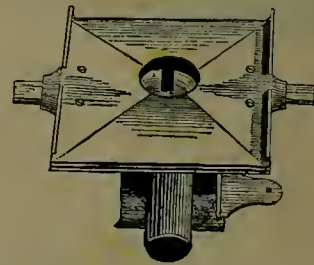
"BODIE."



With Two Sizes of Grates.

Weight, 24 Lbs . . . . . Each, \$4 00

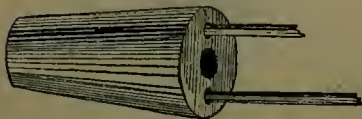
"PACIFIC."



Either right or left hand, with Round or Triangular Ball.

Weight, 50 Lbs . . . . . Each, \$5 00

"CALIFORNIA" WATER.



No.	1	2
Length, Inch	12	16
Weight, Lbs	40	65
Each	\$4 00	6 00

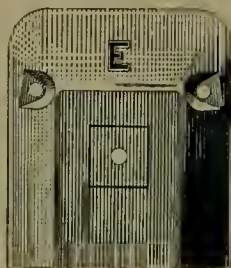
"DOLES" PATENT WATER.



Weight, with Pipes, 25 lbs . . . . . Each, \$6 00

## Forge Backs and Tubes.

LIGHT.

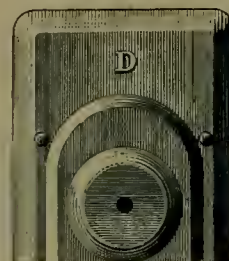


Weight 22 Pounds

Tube only, \$1 00

Each, \$3 00

HEAVY.



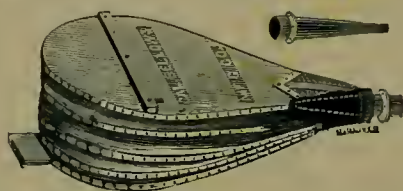
Weight 56 Pounds

Tube only, \$1 00

Each, \$4 50

## Bellows.

"CALIFORNIA" PATENT NOZZLE.



HAND.



### Blacksmiths' Bellows.

Size, Inch,	24	26	28	30	32	34	36	38	40
Each, \$	12 00	13 00	14 00	15 00	16 00	17 00	19 00	21 00	22 50

### "California" Patent Nozzle Bellows.

Heavy.

Size, Inch,	30	32	34	36	38	40
Each, \$	15 00	16 00	17 00	19 00	21 00	22 50

Extra Heavy. Iron Braced.

Size, Inch,	36	38	40	42	44	46	48
Each, \$	27 00	28 00	30 00	31 50	44 00	57 50	72 00

### Hand Bellows.

Size, Diameter, Inch,	6	7	8
Per Dozen, \$	5 00	5 50	6 00

### Moulders' Bellows.

Size, Diameter, Inch,	10	12	14
Per Dozen, \$	17 00	24 00	28 00

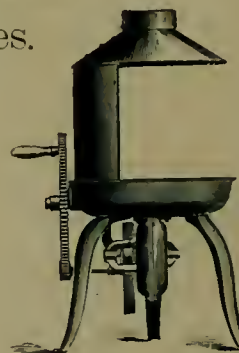
## Prospectors' Forges.



No. 7.

Height, 15 Inches; Hearth, 15 Inches Diameter; Fan, 6 Inches;  
Weight, 40 Pounds.

Price . . . . . \$16 00



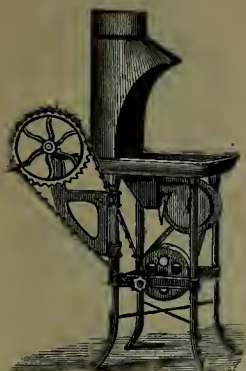
No. 8.

Height, 15 Inches; Hearth, 15 Inches Diameter; Fan, 6 Inches;  
Weight, 50 Pounds.

Price . . . . . \$18 00



# "Keystone" Portable Forges.



FORGE No. 1, WITH HOOD.

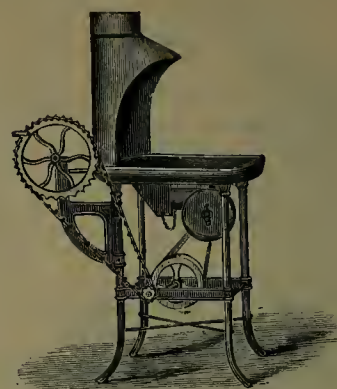
Height, 30 Inches; Fire Pan, 17x20 Inches; Fan, 6 Inches;  
Weight, 88 Pounds.

This Forge will produce a quick welding heat on iron 1 inch diameter. Heavier work can be done on it.

It is used by tank builders, miners, boiler makers, etc.

Being light and strong and compact it is easily carried about.

Price . . . . . \$25 00



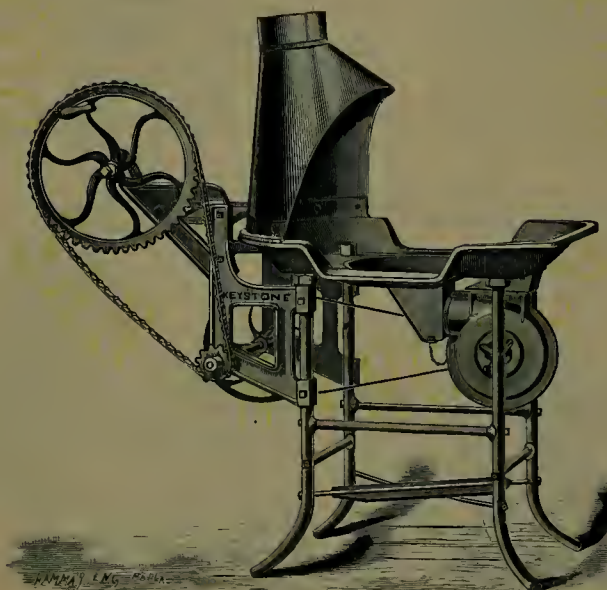
FORGE No. 2, WITH HOOD.

Height, 30 Inches; Fire Pan, 20x24 Inches; Fan, 8 Inches;  
Weight, 104 Pounds.

This Forge will produce a quick welding heat on iron 1½ inch diameter. Heavier work can be done on it.

It is used by boiler makers, bridge builders, on board ships, contractors, etc.

Price . . . . . \$35 00



FORGE No. 2 1/2, WITH HOOD.

Height, 25 Inches; Fire Pan, 21x27 Inches; Fan, 10 Inches; Weight, 150 Pounds.

This Forge will produce a quick welding heat on iron 2 inches in diameter and on heavier iron if required.

It is used for all kinds of tool work, machinists, marble works, millers, and repairs for manufacturers in general.

Price . . . . . \$40 00

FORGE No. 3, WITH HOOD.

(Style of No. 2½, only larger.)

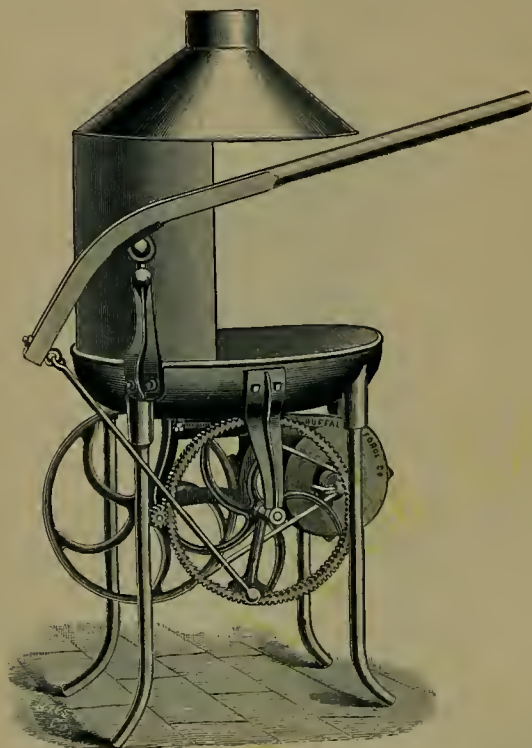
Height, 25 Inches; Fire Pan, 24x30 Inches; Fan, 12 Inches; Weight, 160 Pounds.

This Forge will produce a quick welding heat on iron 3 inches in diameter, or on heavier iron if desired.

It has the latest improved Revolving Ball Tuyere.

Price . . . . . \$50 00

# "Buffalo" Portable Forges.



FORGE No. 1, WITH HOOD.

Height, 29 Inches; Fan, 10 Inches; Hearth, 21 x 27 Inches;  
Weight, 140 Pounds.

Price . . . . . \$40 00



FORGE No. 4, WITH HOOD.

Half Open Hood; Height, 33 Inches; Size of Hearth, 18  
Inches Diameter; Weight, 75 Pounds.

Price . . . . . \$27 00



FORGE No. 3.

Height, 29 Inches; Fan, 10 Inches; Hearth, 21 x 27 Inches;  
Weight, 130 Pounds.

Price . . . . . \$36 00

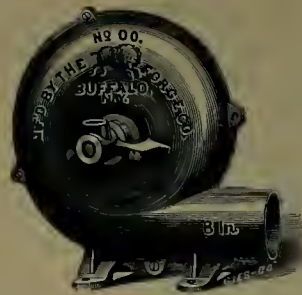


FORGE No. 5.

Height, 33 Inches; Size of Hearth, 18 Inches Diameter;  
Weight, 70 Pounds.

Price . . . . . \$24 00

## "Buffalo" Blowers.



They are especially intended for blowing fires in portable and small stationary boilers, experimenting, and various purposes where a small current of air is desired. Also, for forge fires; No. 00 giving blast for one fire; No. 0 will blow two fires, and No. 1/2 will furnish sufficient blast for four fires.

Blower No. 00. 8 Inch, . \$8 00 | Blower No. 0. 12 Inch, . \$10 00 | Blower No. 1/2. 18 Inch, . \$14 00  
Arranged for Exhausting Purposes, \$2 00 Extra.

## "Buffalo" Portable Forge.



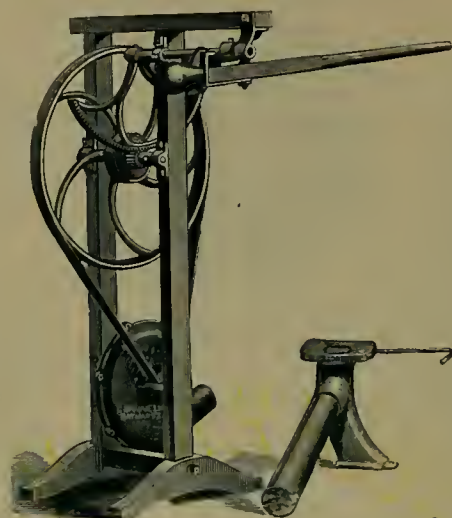
FORGE No. 0.

Height, 30 Inches; Size of Hearth, 28 x 40 Inches; Fan, 14 Inches; Weight, 250 Pounds—with Water Tank, 300 Pounds.

Without Water Tank . . . . . \$50 00 | With Water Tank . . . . . \$54 00



## "Buffalo" Blowers.

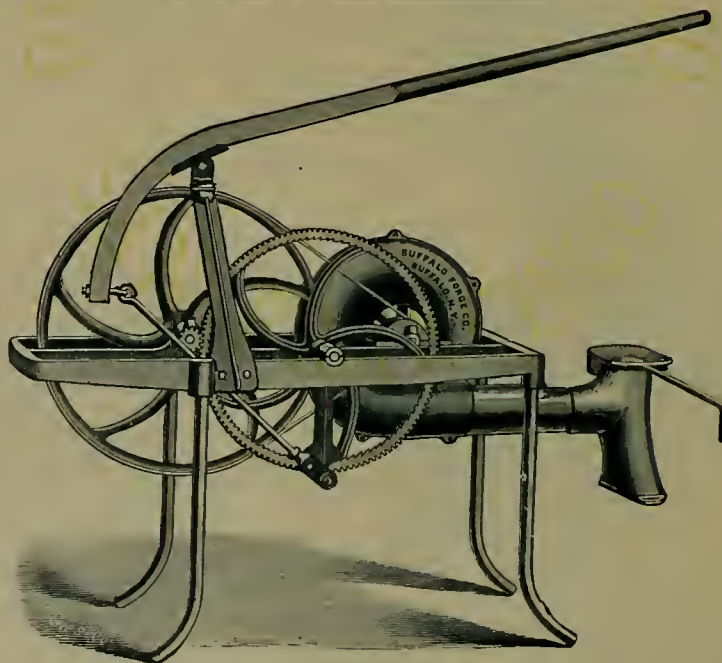


**UPRIGHT BLOWER No. 3.** Adapted for Use of Blacksmiths in General.  
MADE RIGHT OR LEFT-HAND.

The above cut represents Right-Hand Blower.

Size of Fan, 14 Inches ; Weight, 110 Pounds, with Tuyere, 130 Pounds.

Complete with Tuyere	Price, \$25 00	Without Tuyere	Price, \$23 00
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**BLOWER No. 1.**

Size of Fan, 17 Inches ; Height, 35 Inches ; Length, 35 Inches ; Weight, 225 Pounds.

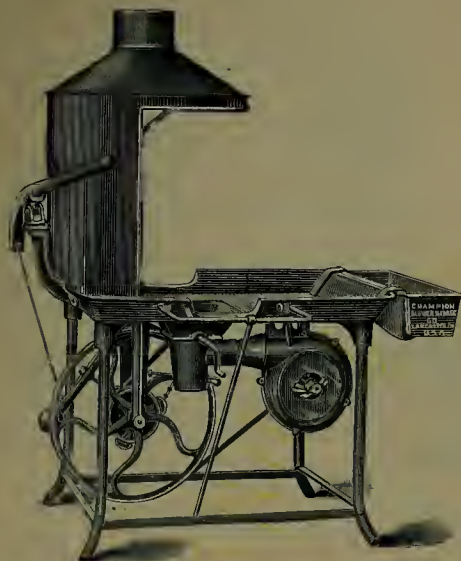
Complete with Tuyere	Price, \$36 00	Without Tuyere	Price, \$34 00
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**BLOWER No. 2.**

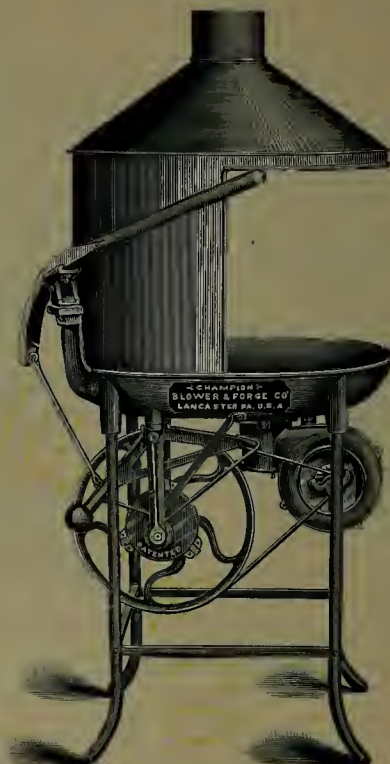
Size of Fan, 14 Inches ; Height, 35 Inches ; Length, 32 Inches ; Weight, 130 Pounds, with Tuyere 150 Pounds.

Complete with Tuyere	Price, \$32 00	Without Tuyere	Price, \$30 00
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## "Champion" Portable Forges.



FORGE No. 1, WITH HALF HOOD.



FORGE No. 3, WITH HALF HOOD.

### Prices and Description.

No. 1. Large Size Champion Blacksmiths' Portable Forge,  
Fan 14 Inches; Hearth 28 x 40, Height 30 Inches;  
Weight 250 Pounds.

With Water Tank, Weight 265 Pounds.

This Forge is adapted for heavy Carriage and Blacksmith work, it having a large Hearth and sufficient blast to do the heaviest kind of work. It will heat 4 inch iron to a welding heat in ten minutes. Blacksmiths will find the Champion a great improvement over the old-fashioned bellows and brick forges.

Price, without Water Tank	\$50 00
" with " "	55 00

No. 2. Champion Boilermakers' Forge with Shield, Fan 10 Inches; Hearth 21 x 27 Inches; Height 30 Inches; Weight 120 Pounds.

This Forge is especially intended for Boilermakers. Iron Bridge and Ship Builders, Railroad Contractors, Miners, Tank Builders, etc.

Price	\$36 00
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No. 3. Champion Machinists' Forge, Half Hood, Fan 10 Inches; Hearth 21 x 27 Inches; Height 30 Inches; Weight 130 Pounds.

Machinists, Plumbers, Miners, Marble Works, Millwrights, Railroad Repair Shops, Locksmiths, Planters and Manufacturers in general, find the No. 3 Forge very convenient and economical, and "just the thing" for their purposes.

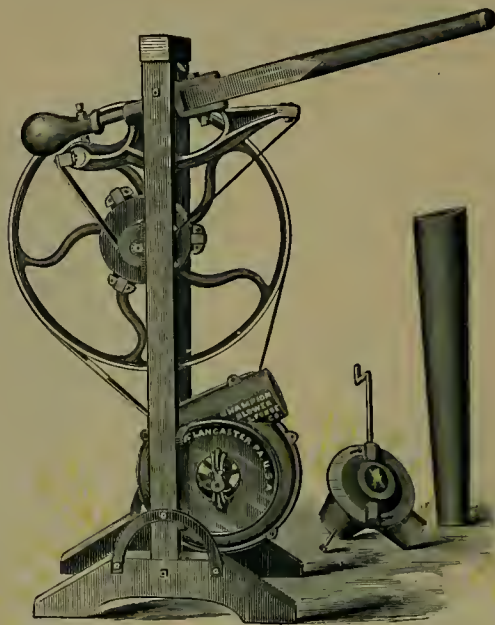
Price	\$40 00
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No. 4. Champion Machinists' Forge, Closed Hood, Fan 10 Inches; Hearth 21 x 27 Inches; Height 30 Inches; Weight 140 Pounds.

A closed hood is placed on No. 4 Forge, which has 2 doors—one in front and one in the rear—thus preventing the escape of sparks, fumes or smoke, and is used in Furniture Factories, Saw and Planing Mills, Oil Refineries, Cotton Mills, Jewelers, Dentists, Varnish Works, etc.

Price	\$42 00
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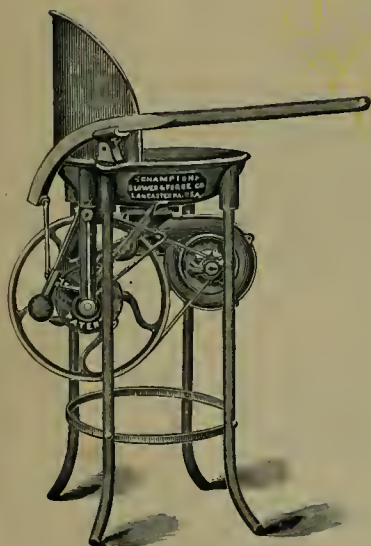
## "Champion" Lever Blowers.



The Light Running Champion Blower works with Swivel Lever.

No. 4. Fan Blower, 14 Inch Case, 22 Inch Fly Wheel; for Geueal Blacksmith Use	\$18 00
Complete with Tuyere	\$20 00

## "Champion" Portable Forges.



Forge No. 5 with Shield.

Works with Swivel Lever as represented in the above cut.

No. 5. Champion Rivet Forge with Shield, Height 33 Inch, Hearth 18 Inch Diameter, Weight 80 Lbs.

Price \$24 00

Forge No. 5 is adapted for use of Tank builders, Elevated Railroad builders, Miners and Prospectors, making repairs on Boilers, Bridges, etc. It is easily carried about the country, being light, strong and compact.

No. 6. Champion Toolmakers' Forge, Half Hood, Height 33 Inch, Hearth 18 Inch Diameter, Weight 85 Lbs.

Price \$27 00

Forge No. 6 is very convenient for Small Hardware manufacturers for heating and tempering tools of all kinds. They are also used by Jewelers, Tiusmiths, Plumbers, Tool Makers, etc.

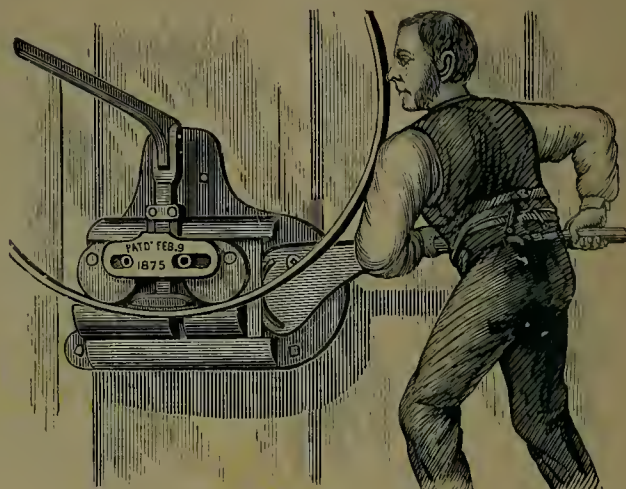
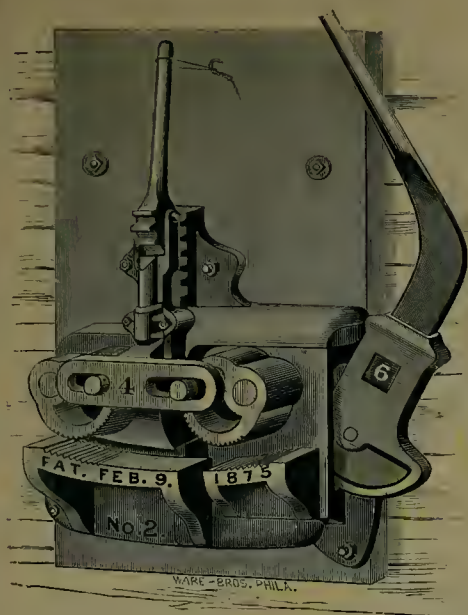
No. 7. Champion Jewelers' Forge, Enclosed Hood, Height 33 Inch, Hearth 18 Inch Diameter, Weight 80 Lbs.

Price \$30 00

Forge No. 7 has a closed Hood, with door in frount and a small slide in the rear, and is used for tempering tools iu Factories where combustibile material is used, and also by Jewelers, Locksmiths, Cabinetmakers, Pattern aud Model makers, Farmers, etc.



## "Stoddard's" Lightning Tire Upsetter.



Made of the Best Material and Designed for Hard Work. The Notched Eccentrics are Chilled. All Machines Tested.

Blacksmiths will find this Machine far Superior to all others.

### DIRECTIONS FOR USING UPSETTER.

The above cut shows the position of Upsetter when set up for use. It should be bolted upright to a 2-inch plank, so that the opening comes about 20 inches from the floor. The boss on the back of Upsetter should be let into the plank or post, so that it fits solid on the facings.

A bar of round iron, 1 inch in diameter by  $2\frac{1}{2}$  feet long, must be welded to the wrought iron stub furnished with machine (straight from the bend), making the whole length of the bar not less than 4 feet, so that when in place it will stand in the position represented in the above cut. (For 4-inch Upsetter a bar of round iron,  $1\frac{1}{4} \times 3\frac{1}{2}$  feet long, should be used.)

The small lever should be fastened up (by hook in plank), leaving the eccentrics raised and ready for use, as shown in cut: heat the tire to a soft heat, place the hot part under the clamp in the opening to prevent tire from kinking. Bring down the small lever in front, so that the eccentrics are pressed firmly to the tire; let go small lever and bring down long lever, and upset to amount required. Then raise long lever first to loosen tire.

There are four loose pieces—comprising a set (2) of thick and a set (2) of thin, furnished with each No. 3 Special Machine.

The loose pieces are used in upsetting tires or axles less than 1 inch thick.

In upsetting tires from  $\frac{1}{8}$  to 1 inch thick, use the set of thick pieces.

The thin pieces are for use in upsetting heavy 3-foot tires only.

Always see that your tire sets back *solid* against the hack plate of the machine, and if the tire should be worn thin on one edge, as is often the case, *be sure* and put the thin edge against the hack of the Upsetter.

### Read the Following Remarks:

FIRST.—This is a machine and should never be struck with a hammer; make tire welding hot, and then you can do the work without the aid of a hammer.

SECOND.—Keep scales, chips and pieces of iron from between fixed and movable jaws, and observe that the opening in lower part of Upsetter is kept open and clear, as this is made to allow the scale, etc., to drop out.

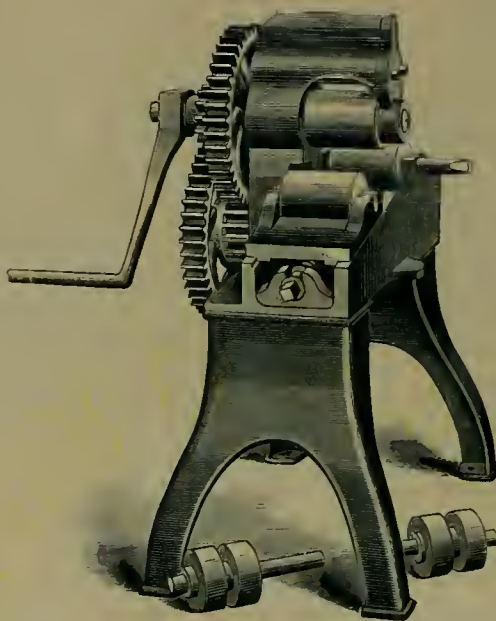
THIRD.—Never set up the Upsetter horizontally, but always perpendicularly on a plank. We give this *caution* because we *always* find that broken machines are the result of one or the other of the above troubles.

N. B.—In case of breakage or otherwise, be sure to order, by giving the *number* of the *Upsetter* or *machine*, and number on the part wanted (which will be found in a conspicuous place on the different parts).

No. 1.	Will shrink iron $\frac{3}{4}$ by 2 inch wide	Price, \$25 00
No. 2.	Will shrink iron $1\frac{1}{4}$ inch thick by 4 inch wide	" 30 00
No. 3.	Is a "Special" 4-inch Tire and Axle Upsetter combined, will shrink 2 by 4 inch, or 2 inch square, IT CAN BE ADJUSTED to UPSET 3 AND 4-FOOT TIRES, having two sets of loose jaws furnished with each machine; and by removing the loose jaws, will upset axles from 1 to $1\frac{3}{4}$ inches, combining two machines in one.	" 35 00
No. 4.	Special Size, upsets iron $1\frac{1}{4}$ by 6 inch wide	" 50 00

## Tire Benders.

## WORCESTER TIRE BENDERS.

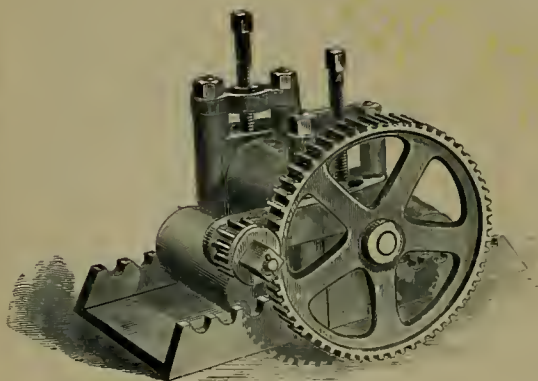


The above is made open on one side, so that a tire can be taken out without springing, and can be put back after welding and trued.

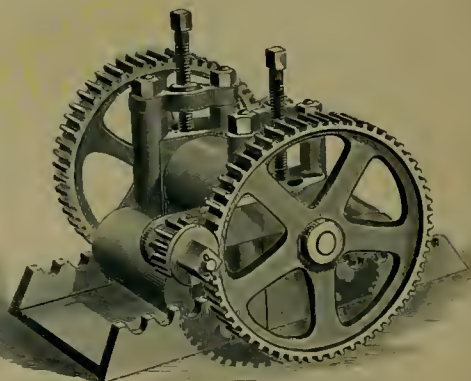
It is also provided with an extra pair of rolls, with slip collar, for bending iron edgewise.

No. 1	Will Bend Iron	1 Inch	by 4	Inches.	Weight, 500 Pounds	Price, \$85 00
No. 2	"	"	"	$\frac{5}{8}$ "	" 2 $\frac{1}{2}$ "	" 55 00

## "KINSLEY'S," COMPLETE WITH CRANKS.



STYLE OF GEAR, No. 1.



STYLE OF DOUBLE GEAR, Nos. 3 and 4.

No. 1	Will Bend Iron	2	by $\frac{1}{2}$ Inch.	Weight, 102 Pounds	Price, \$12 00
No. 3	"	"	" 3 $\frac{1}{2}$ "	" $\frac{3}{4}$ "	" 20 00
No. 4	"	"	" 6	" 1"	" 32 50
No. 5	"	"	" 6	" 1"	" 36 00

## "Green River" Tire Benders.

FOR LIGHT AND MEDIUM WORK.



This machine will bend accurately and easily tires from the lightest to  $\frac{3}{8}$  inch thick by 3 wide. The circle to be made is fixed by means of a right and left hand screw, operated by the hand wheel acting equally upon the two lower rollers. The rollers are 3 inches wide. The upper roller is faced with steel and milled to insure the regular feeding through of the work. It is powerfully geared, and two cranks may be used if desired.

Weight, 140 Pounds

Price, \$30 00

## "Green River" Tire-Shrinker.



The Tire lies in a properly-shaped former, and force being applied to the handle with the left hand, the right hand remains at liberty to use the hammer in keeping the work true and straight, the only safe way of getting a perfect result at a single heat.

The cams which grip the work are set by means of levers at the will of the workman, and are instantly withdrawn from the finished tire in the same way. All slipping at starting, and all jamming and sticking after finishing, are thus avoided.

It is managed by one man with perfect ease, and works equally well on the lightest steel tires and on wagon tires  $2\frac{1}{2}$  by  $\frac{5}{8}$  inches wide.

It occupies a space about 2 feet square on the floor.

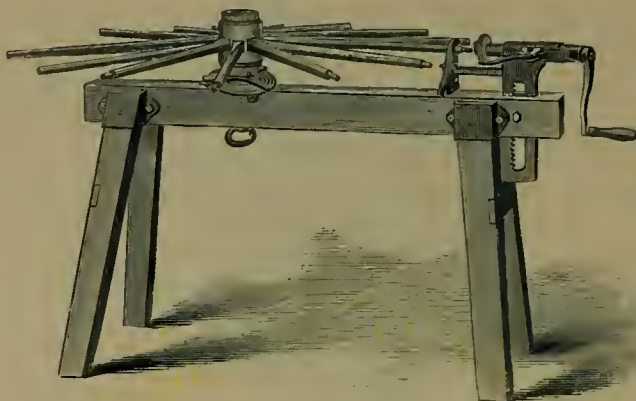
Weight, 160 Pounds

Price, \$20 00



## Wagon Working Machinery.

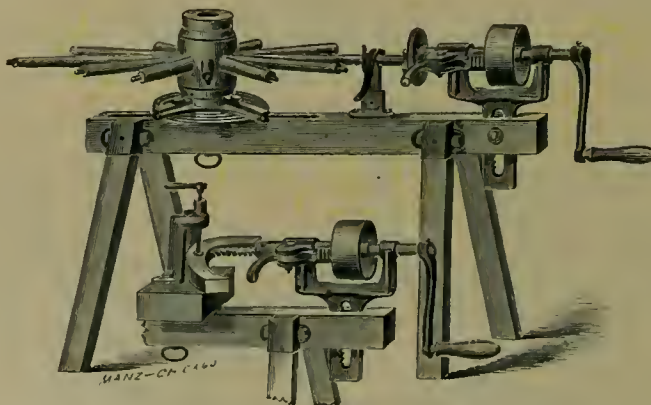
### "DOLE & DEMING'S" PATENT SPOKE TENONING MACHINE.



The above cut represents the No. 2  $\frac{1}{2}$  Machine. The No. 2  $\frac{1}{2}$  Machine is of a larger size than the No. 1, having a Hollow Auger of large size, and cutting a Tenon from  $\frac{3}{4}$  to 1  $\frac{1}{2}$  inches. No. 1 only is without legs.

No. 1.	Complete with Felloe Boring Attachment, Cuts $\frac{7}{16}$ to 1 Inch	\$25 00
No. 2 $\frac{1}{2}$ .	" " " " " $\frac{3}{4}$ " 1 $\frac{1}{2}$ "	35 00
No. 2 $\frac{1}{2}$ .	As above, with 2 Augers, Cutting $\frac{7}{16}$ to 1 $\frac{1}{2}$ Inch	45 00

### HAND AND POWER SPOKE TENONING MACHINE.



This cut exhibits the Improved Hand and Power Spoke Tenoning Machine, of which two sizes are made. They are intended to supply a demand from large factories for a Power Tenoning Machine; and that this demand has been supplied satisfactorily by this Machine is attested by their large sale both in this country and abroad.

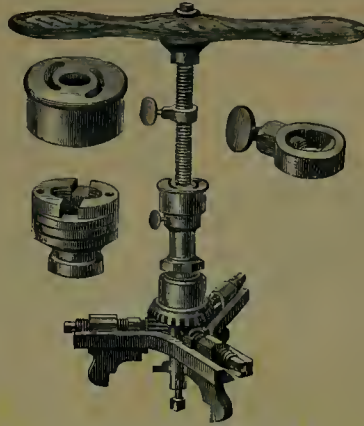
The No. 3  $\frac{1}{2}$  Machine is fitted with the Nos. 1 and 3 Star Hollow Augers, and will cut Tenons any size from  $\frac{7}{16}$  to 1  $\frac{1}{2}$  inches.

No. 3 $\frac{1}{2}$ Machine, Complete with Felloe Boring Attachment	\$60 00
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FOR PRICE OF HOLLOW AUGERS, SEE INDEX FOR AUGERS.

# Wagon Working Machinery.

## "SILVER'S" PATENT HUB-BOXING MACHINE.



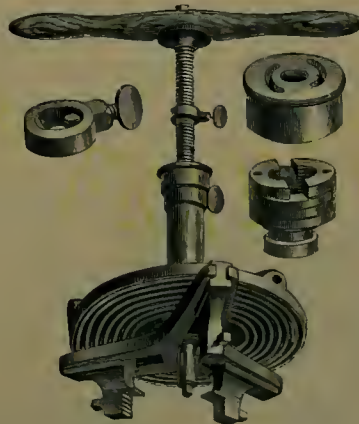
This is of more recent construction than the Dole Hub-Boxing Machine, and combines all the good qualities of that popular Machine, besides having some features not possessed by it. The Open Feed Nut, which admits of withdrawing the Mandrel from the Hub after boring the required depth, by simply turning the cap to the left, is an important consideration. The peculiar form of the Chuck admits of a better view of the work, while the movement of Jaws being effected by the aid of screw pinions working directly through the Jaws, gives the Machine great power for clamping the Hub. The Jaws are provided with two shoulders for clamping Hubs — the inner ones for light, and the outer ones for heavy work.

The No. 1 Machine will clamp Hubs from 2 to 9½ inches in diameter. The No. 2 Machine, which is designed to be used only on very heavy work, will clamp Hubs from 9 to 14½ inches in diameter. When ordered, we furnish the No. 1 Machine with an extra Mandrel, made light at the end, and provided with an extra set of small Bits, which renders it suitable for the lightest class of work.

No. 1 Machine	Price, \$28 00	No. 2 Machine	Price, \$35 00
Extra Mandrel and Bits for No. 1			Price, \$3 50

## "DOLE'S" HUB-BOXING MACHINE.

"Silver's" Patent Open or Adjustable Feed Nut and Gauge Plate Attached.



This Standard Machine long since became an indispensable requisite in the wagon and carriage shops of the country, and is sold largely in foreign countries. The popularity acquired by this Machine is almost unparalleled in the history of patent machinery. They are still made with the solid Feed Nut; but with the addition of the "Silver's" Open Feed Nut and Gauge Plate, they are regarded as more desirable, and a large part of our orders are for the Improved Machine.

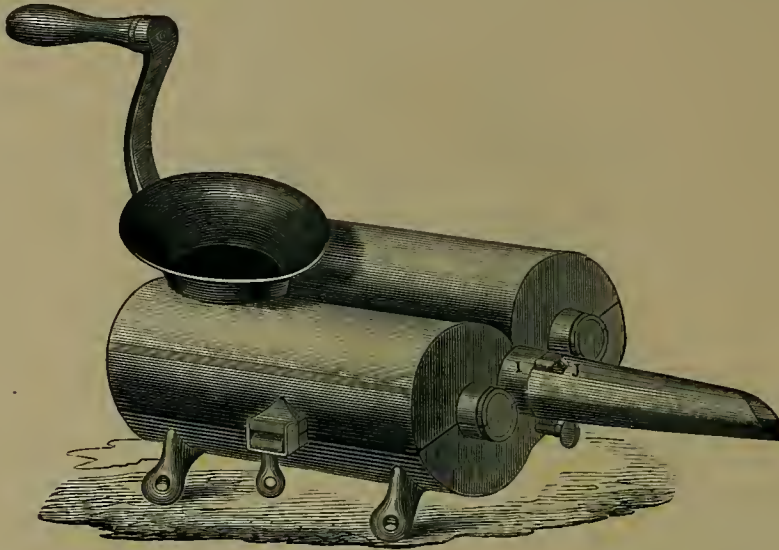
No. 1 Machine is fitted for Carriages and light Buggy work. No. 2 Machine is fitted for ordinary Carriage work to four-horse wagons. No. 3 Machine is fitted for Wagon work up to the heaviest class.

### PRICES OF MACHINE WITH IMPROVED FEED NUT AND GAUGE PLATE.

No. 1. Fitted as above described	Price, \$23 00	No. 2. Fitted as above described	Price, \$26 00
No. 3. Fitted as above described	Price, \$30 00		

FOR PRICE OF MACHINE BITS, SEE INDEX FOR BITS.

## "Hale's" Patent Meat Cutter and Stuffer.



Will cut from 3 to 5 pounds per minute, the quantity varying with the size.

We can, without hesitation, offer this Cutter and Stuffer combined as the best article in use for the purpose. It will cut (not TEAR) the meat more rapidly, is more simple in construction, having but one knife, which is self-sharpening, and is easier cleaned than any Cutter made.

No. <b>11</b>	<b>12</b>	<b>13</b>
Length, Inch, 5	6	7½
Per Dozen, \$27 00	33 00	45 00

## "Miles" Patent Butchers' Meat Cutter.

LETTER "E."



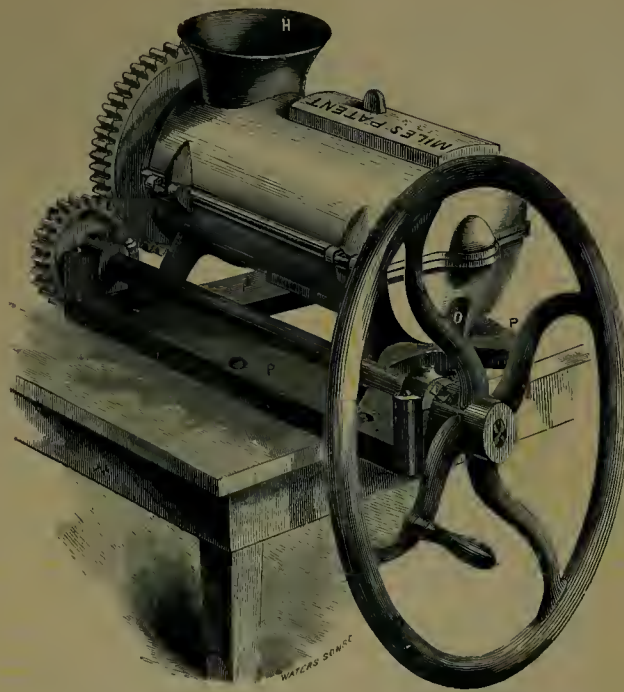
This is a conveniently arranged form of Machine, and works quite easily. Cuts from 25 to 30 pounds an hour.

Price . . . . . Each, \$15 00



# "Miles" Patent Butchers' Meat Cutter.

LETTER "D."



This Machine is geared to run easily, and is particularly adapted for cutting Beef for Bologna Sausages.

Cuts from 50 to 75 pounds an hour.

Price

Each, \$30 00

## "Miles" Family Meat Cutter.



No. 1  
Length Cylinder, Inch, 6  
Per Dozen, \$24 00

2  
7  
30 00

3  
8  
42 00

## "Enterprise Co.'s" Fruit, Wine and Jelly Press.



This illustration represents the new COMBINATION FRUIT PRESS in operation. We confidently guarantee it superior to all others in the market. Its principle is very simple; it is easily operated, and saves all the rehauling necessary with other presses. It can be used for many purposes, such as making Wines, Jellies and Fruit Butters from Strawberries, Raspberries, Blackberries, Huckleberries, Grapes, Gooseberries, Elderberries, Cranberries, Currants, Tomatoes, Quinces, Pineapples, and other Fruits and Berries, the entire substance being extracted in one operation, the Fruit or Berries being uncooked.

Price

\$3 00

## "Enterprise" Meat Choppers.



FAMILY SIZE. No. 10.

No. 10. Weighs 8 lbs, Chops 1 lb per Minute	Price, \$3 00	No. 22. Weighs 12 lbs, Chops 2 lbs per Minute	Price, \$4 00
No. 12. " 7 " " 1 " " "	" 2 50	No. 32. " 18 " " 3 " " "	" 6 00

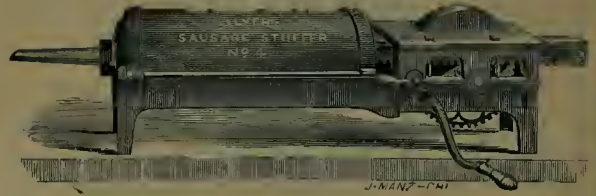
## "Silver's" Sausage Stuffers.

SINGLE GEARED—HOTEL SIZES.



No. 1. Capacity 6 lbs, Weight when Crated 30 lbs, Price, \$5 00  
 No. 2. " 9 " " " " 40 " " 8 00

DOUBLE GEARED—BUTCHER'S SIZES.



No. 3. Capacity 12 lbs, Weight when Crated 60 lbs, Price, \$16 00  
 No. 4. " 20 " " " " 75 " " 22 00  
 No. 5. " 40 " " " " 125 " " 40 00

## "Smith's" Improved National Sausage Stuffing Machine.



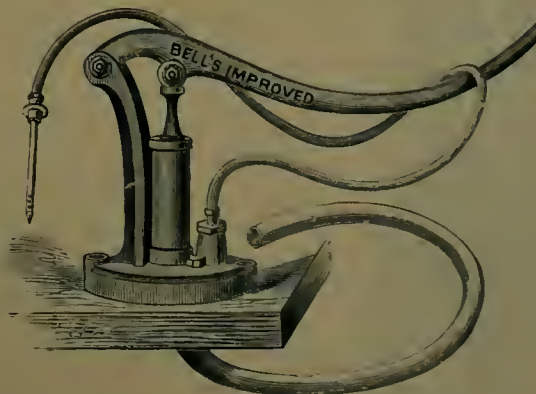
Equal to the best in the market. Has double gears, being very powerful, and so easily worked that a boy ten years old can work it; it has two cranks, one for filling, the other to run the rack out rapidly: it requires only three turns of the crank to run out the rack. It is very strong and compact, handsomely finished, with Galvanized Iron Cylinder, and everything first-class.

The great fault with most Stuffers is that they are gotten up cheap and light in the frame and gear, which causes them to break. We have made our Stuffers considerably heavier and stronger in gear and frame for this reason.

Capacity, 20 lbs

Price, \$20 00

## "Bell's" Improved Ham Pump.



The pickle forced in should be full as strong as that in which the legs are afterwards placed.

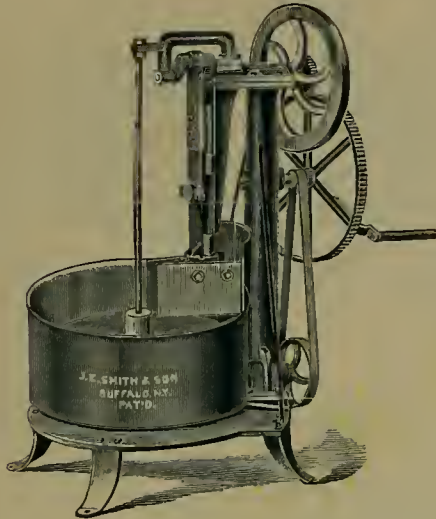
Price, with Nickel-Plated Needle, Steel Screw Tip

\$15 00



# The "Buffalo" Meat Choppers.

SINGLE-CRANK. (HAND)



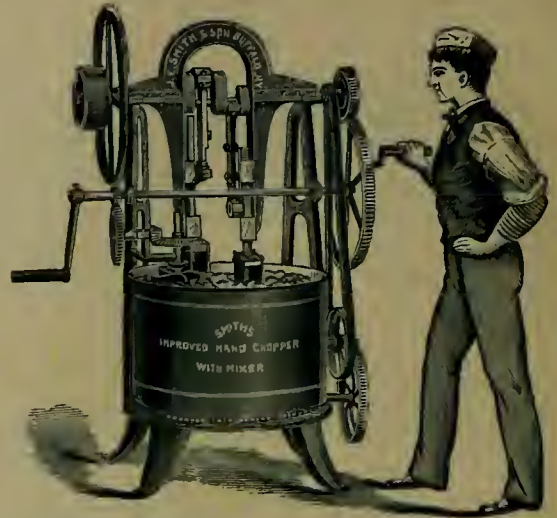
No. 00.

This machine has a steel crank shaft, 2 knives, block 22 inches, and will chop 20 lbs of meat at a time. This machine is very strong and solidly built, the block of well-seasoned hard maple, well jointed together, and is guaranteed to cut any kind of meat. The knives and improved attachments are the same as on the \$95 00 Chopper. It is very simple and will last a lifetime, it runs very easy, so that most any boy can turn it.

Price . . . . . \$60 00

DOUBLE-CRANK. (HAND)

WITH MIXER COMBINED.



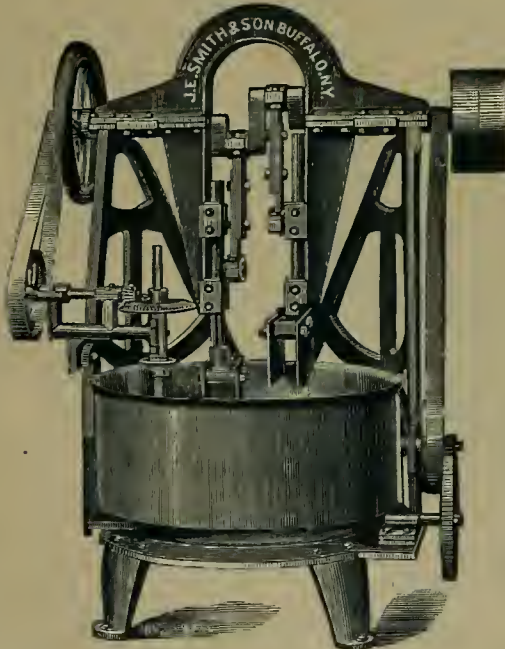
No. 0.

The Best and Cheapest Hand Chopper in the Market. Warranted to Cut any kind of Sausage Meat.

It has a block 25 inches in diameter, 4 knives, a cast steel crank, will cut 25 to 30 lbs in fifteen minutes, and runs very easy.

Price, with Mixer . . . . . \$95 00  
Pulley for Power, \$2 00 Extra.

FOR POWER.



No. 1.

CHOPPER No. 1.

CAPACITY: Chops, Stirs and Mixes 80 to 90 lbs at a time. Block, 32 Inches; 4 Knives; Weight, 1200 lbs; Steel Crank Shaft; quick adjustable Knife Holders; Belt Shifter, and all Latest Improvements. Pulley, 13 Inch, 3 Inch Face. One to two horse will run it.

Price . . . . . \$220 00

Mixing Arms.

FOR NOS. 0 AND 1 MEAT CHOPPERS.



THIS CUT SHOWS THE SHAPE OF THE MIXING ARMS.

They are fastened to a shaft as seen on cut of machine, No. 0, above.















